

# 非理性繁荣与金融危机

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## 专家与媒体推荐

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阅读这部激动人心的著作的过程，就像在看一位技艺高超的外科医生在工作。阅读他的理论著作是一件令人赏心悦目的快事。

——彼得·L·贝恩斯坦

著名金融作家和历史学家

在这部吸引人的著作里，罗伯特·席勒以一个金融市场领域非理性行为研究专家的身份，对次贷危机进行了鞭辟入里的分析。

——格里高利·克拉克

美国经济史学家，加利福尼亚大学戴维斯分校经济系主席

在这本书里，席勒将严格的经济分析和对人类心理的深刻洞察力结合在一起，用以分析我们最近陷入的经济困局，这本书不仅分析了其发生的原因，同时也提出了可行的解决方法，为将来抑制泡沫危机提供帮助。比起具有针对性的建议而言，更重要的是他穿越现有经济格局中表面乐观的数据的锐气。

——彼得·奥萨格

美国国会预算局主管

《非理性繁荣与金融危机》是一本严密、富有创新性与可行性、精彩绝伦的书，将对广泛的读者群产生影响。罗伯特·席勒是分析目前这场空前的抵押贷款和住房市场，并进而延伸到更广泛的信贷市场

困局的最合适的人选。他再一次证明了自己 在处理金融市场里复杂的理念和实证的能力。

——戴安娜·科伊拉

英国竞争委员会委员经济顾问

罗伯特·席勒是一个梦想家。

——纳西姆·尼古拉斯·塔斯布

《黑天鹅》作者

席勒在他的书中发出警告，认为2008年的信用危机正在成为一个可怕的冒险。席勒在书中为避免未来的危机提供了诸多让人印象深刻的建议。

——《商业周刊》

此书对2007年次贷危机进行了深入的分析，为政策制定者、华尔街和全球投资者提供了深入而细致的参考。

——《福布斯》

当罗伯特·席勒观察次贷危机时，他看到的远不仅是雷曼公司和美林公司崩塌的表面现象，他认为这次危机的影响可以和《凡尔赛和约》、大萧条以及马歇尔计划相提并论。

——《西雅图时报》

本书特色鲜明。毫无疑问，它是深入了解危机的最佳捷径。

——《经济学人》

对于一堆不起眼的篝火，如果我们能控制好它，我们谁也不会受到任何伤害，然而一旦它突然烧成一片火海，就会表现出巨大的杀伤力。

——约翰·梅纳德·凯恩斯

## 第二版序言

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本书的第一版问世于2008年8月，恰好遇上了房价波动引发的金融危机，随后一个月左右的时间里，雷曼兄弟公司、美林公司和美国国际集团相继衰败，可以说这个时点标志着一次恶性危机的全面发端。我曾在第一版中说过，这本书的写作初衷就是在人们都还没有看到危机最恶劣的影响之前，充分揭示真正值得大家担忧的问题：我们需要的是担忧恶劣的经济状况可能会持续许多年，或许会经历一个“失去的10年”。如果用最悲观的心态来预测，未来几十年间，这种危机还会不断重演。因此，写书的短期目的在于应对已经发生的危机，长期目的则在于预防21世纪未来几十年中危机的重现。

确实，我们现在已经明白了，担忧未来的经济状况是合情合理的：因为自2008年以来，世界上许多国家的经济状况都持续恶化。根据世界银行发布的数据来看，2010年时，所有北美洲经济体、3/4的欧洲经济体、澳大利亚、新西兰，以及印度等地的就业人口比例比2008年危机爆发时还低，这说明它们的经济状况在持续恶化。到2012年，上述国家和地区当中，某些经济体的情况比之前还要糟糕。

我在本书中强调，这场被人们称作次贷危机的风波，实质上是房地产泡沫破裂带来的恶果。尽管在房地产泡沫破裂之后又出现了许多吸引人们注意力的事件，即使这个本质论断放到今天来看仍然是正确的。房地产泡沫，以及促使泡沫产生并扩大的心理因素，是这场危机的真正成因。虽然人们对金融创新横加诟病，但是金融创新既不是这次危机的主要成因，更不可能是其根源性成因。当然，我承认在创新的过程中肯定会触及某些人的痛处，这与此次危机确实有较高的关系。危机爆发之前，监管者和央行的疏失都对泡沫的产生和发展造成

了重要的影响，但这并不能成为危机爆发的核心原因，相反的，正是由于泡沫的存在，使得整个社会充斥着自负的情绪，这才导致了监管的缺位。

此次危机因次级贷款而得名，这种贷款确实在世界各国的房地产泡沫中扮演了一定的角色，尽管全球都以次级贷款来命名此次危机，但实际上使用次级贷款最多的国家还是美国，也就是此次危机的发源地。随着危机在世界范围内蔓延，人们的注意力逐渐从次级贷款转到了政府债务问题上，目前危机最新的发展阶段（尤其是希腊、西班牙、意大利和其他一些欧洲国家发生的问题）被称为欧洲主权债务危机，这已经成为目前最应该担忧的问题。此次危机爆发前的10年间，房地产泡沫的出现使得人们非常自负，从而使得美国政府对高额债务视而不见，最终导致次贷的爆发式增长和破灭，同样的自负情绪也是导致欧洲各国政府高额债务的“幕后黑手”。除此之外，正是由于次贷危机使得人们对整个金融体系失去信心，所以才在2009年引发了欧洲主权债务危机。仅以21世纪的标准来判断，世界各国的金融体系都是相互关联的，不仅从书面合同上有关联，从内在的文化和制度上都有高度的相似性。

显然，我们在次贷危机中遭受了严重损失。本书的主旨就在于解释次贷危机的成因及其发展过程——也就是试图说明为什么次贷危机引发了更为严重的金融危机。除此之外，我也试图通过这本书向读者们说明，社会需要某些可靠的金融制度来保证资产市场的稳定以及经济的健康，我们需要不断地革新这些制度，以促使其不断向前发展。

自本书第一版问世后4年，世界金融史可谓极尽悲凉，在这种背景下，我们一方面需要采取一些立竿见影的措施，另一方面也需要考虑进行一些长期的制度改革。我所钟意的长期改革，包括在本书第五章当中介绍的更为灵活的抵押贷款工具，我坚信这种改革能够取得成

功。与此同时，我们还是需要采取一些立竿见影的措施来帮助那些抵押贷款完全无望还清的房屋购买者。

## 住房融资业务的兴起与崩溃

用事件发生几年后的眼光来回想当年的情境，我们会问：为什么次贷市场的产生和破灭都发生得如此迅猛？其实，导致问题产生的原因很多，也很复杂。根源性的错误理念就是似乎所有人都认为房价永远不可能下跌，至少长期内不会持续下跌，人们相信房价永远都处于一条上升的通道里。

2011年，卡尔·凯斯和我对4个城市里的新近购房者进行了访谈，我们向他们提问：“你是否同意下列说法？‘住房价格永远不会下跌，即便短期内下跌也会很快涨回来。’”我们进行这个访谈项目的时候，美国的住房价格已经连续5年实质性下跌了，即便如此，仍有20%的受访者同意上述说法。可以推测，在次贷危机爆发之前，持有这种观点的人肯定不在少数。或许大多数普通人都不会认真地思考这个问题，也不会达成房价不会下跌的结论，但大多数人都相信，由于人口越来越多，对经济发展的需求越来越旺盛，所有这些长期的社会压力加在一起，肯定会促使房价不断攀升。

如果一个人相信房价不会面临持续下跌的风险，那么这个人肯定也就认为抵押债券都是相当安全的金融产品。如果购房者无力偿还贷款，那么放款人可以取消房屋的赎回权，把房子卖掉，这样就能获得足够的资金抵充贷款余额。甚至人们认为现实操作当中都不会出现取消房屋赎回权的做法，因为当住房所有者不愿意继续偿还抵押贷款时，他可以把房子转卖，自己获得现金，既可以避免被取消赎回权，又可以免除后续可能出现的损失。



此次危机爆发之前，为数众多的公众都不相信房价会在长期内持续下跌，这种盲目的信念让我感到非常疑惑。对我而言，这种房价下跌显然会发生，因为自21世纪初开始，房价就以极高的速度攀升，到危机爆发的前夜，房价已经飙升至一个不正常的高位，这种情况显然不能持续，当越过临界点之后，房价肯定要下跌，而且会在很长一段时期内停留在较低的水平。不用多说，这种情况已经构成了房地产泡沫，并且有很多人持有和我相同的观点。但持有这种观点的人在整個社会中仍然只占到极少数。每当我与那些坚信房价不会长期低迷的人交谈时，我总能发现，这些人要么没有读过历史，要么没有接触过有关房价的数据，他们的观点完全盲从于社会的主流观点。

我们不应该盲从于社会的主流观点，而应该相信通过对历史的严肃分析，以及运用社会科学原理进行分析之后得出的结论。更为重要的是，我们必须信任数理金融学的理论，毕竟这些理论是在经历了行为金融学革新之后，经过学者们的分析和修订才形成的。

另一个令人费解的谜题是：住房抵押贷款支持证券（RMBS）是一种在20世纪70年代之前完全没有市场需求的证券，但为什么短短几年之内，这个证券的交易市场竟能够成长得如此巨大？在房利美和房地美开始发行住房抵押贷款支持证券之前，投资者一般都是投资持有抵押贷款的银行的股票，那么投资这些银行的股票与购买住房抵押贷款支持证券之间到底有什么本质差别呢？

放眼世界大多数国家，证券化业务从来没有发展成为一种主流业务。而证券化业务在美国的兴盛也完全根植于政府的支持。如果美国政府没有实质上构成对房利美和房地美的资助，那么抵押贷款证券化业务或许根本无从起步。

危机爆发之前，许多理论家认为抵押贷款证券化是一项重要的创新。证券化的抵押贷款帮助人们解决了一个“柠檬市场”困境。最早提出所谓“柠檬市场”困境的是乔治·阿克洛夫，他的这套理论大

意思是，普通人通常都不愿意购买未经标准化处理的商品，或者是无法验证品质的商品，比如说二手车，他们担心自己没有足够的经验来判断商品是否存在缺陷，而且猜疑商家会故意向自己推销“柠檬市场”的商品。商家当然知道商品的好坏，但是买家无从得知。如果一个人先入为主地认为商家出售给自己的一定是不好的东西，那这个人肯定只愿意支持同类商品的最低价。恶性循环之下，商家根本就不会拿出好东西来卖，于是整个市场就变成一个只卖劣质商品的地方。之所以把证券化业务称为一项创新，就是由于它能够解决“柠檬市场”的问题。

“柠檬市场”这个问题是有药可解的。通过金融创新至少能在一定程度上进行缓解。将抵押贷款做成证券，交给独立的第三方评级机构进行估值，并且把同一个机构发行的证券拆分成不同的等级，交给不同的专业机构进行评估，这样能够有效降低投资者买到“柠檬市场”中那些次品的风险。根据这个理论，投资者应该能够信任较高等级的担保债务权证（CDOs），至少信任度要比任何抵押贷款放款机构自行设计的贷款池或其公司股票要高。所以，投资者也更愿意购买高等级的担保债务权证，从而也给住房贷款放款机构开辟了新的资金来源。

把证券化产品分级是一个不错的想法。但在实际操作中却没能得到较好的执行。背后的原因前文中已经提过，那就是大多数人，包括评级机构在内，都认为房价不可能下跌。所以，即便证券化业务背后的理论是站得住脚的，但是现实中产生的证券却获得了过高的评级，也导致人们过度信任这些产品。

这也是导致历史上反复出现金融危机的症结所在。只要人类的本性不发生改变，我们就总是容易促生经济泡沫，也容易受到泡沫破裂带来的伤害。

我在本书中其实是比较赞同抵押贷款证券化这样的金融创新的，只不过可能需要经过长期的酝酿，在未来的某个时候再推出，尽管当下民众对金融创新仍然持有敌对和怀疑的态度，我还是主张应该进行此类创新。

## 本书观点的持续有效性

本书第四章提出了一条最值得关注的短期方案，也就是我们应该为那些无力偿还抵押贷款的住房所有者找到某种出路。只有帮助这些人降低他们担负的抵押贷款额度，才能避免这个群体退化成影响市场信心和经济稳定的不良因素。我所提的短期方案类似于大萧条之后，美国政府创设的业主贷款公司。但是，目前我们还没有看到任何类似的措施变成现实。美国可以说是最热衷于讨论这个问题的国家，而美国政府也为资助那些无力还贷的住房所有者设计了一些方案——住房偿付能力贷款修改项目（HAMP），住房可偿付融资计划（HARP），购房者偿付能力及稳定计划（HASP），以及住房可偿付融资计划二期（HARP II）——但这些方案都没有取得令人满意的效果；这些项目并没能帮助住房所有者实质解决难以偿债的问题。

这种状况迄今为止没有一点儿转好的迹象。根据标准普尔/凯斯－席勒住宅价格指数，自本书第一版问世到2012年第一季度，美国的住房价格下跌了18%，这使得住房所有者承担的债务变得更加沉重，他们所购房屋的价值相比2006年的峰值下跌了35%。根据美国一家房地产分析机构（CoreLogic公司）发布的负资产报告的预测，截至2012年，将近有1/4的美国住房价格处在其抵押贷款总额价格之下。我们必须解决这个问题，否则仅在美国一个地方就会再次出现成千上万的取消赎回权的事件。在世界其他一些出现房地产价格下跌的国家，人们也面临着同样的问题，但他们所遇到的问题的规模通常都很小。

问题一直在持续，公众也有意愿看到更多的抵押贷款偿付调节计划的实施。实际上，许多抵押贷款的调整偿债方案，对投资者和购房者同样有益，并且能够同时符合美国和国际社会的利益。问题之所以长时间得不到解决，尤其在问题最严重的美国，症结在于次贷危机发生之后留下了一个巨大的烂摊子，没人能够简洁地理顺危机遗留的各种法律问题。政府做出的任何政策调整，对投资首次抵押贷款和再次抵押贷款的投资者会造成不同的影响，对于购买了不同优先级的担保债务凭证的投资者也会造成不同的影响。要想把利益不同的群体召集在一起，商议出一个一致的解决方案将是非常困难的。所以说，这是一个集体的问题，其实也正适合由政府出面来牵头解决。

在解决法律法规障碍方面，我们已经投入了很长的时间，不过现在看来我们已经有希望出台一套解决方案。目前，有人开始倡议，美国的州政府和地方政府，通过自身具有的土地征用权强迫投资者接受抵押贷款偿付调节计划。各级政府在这项权力的支持下，可以出于为公众利益考虑的目的废止原有的抵押贷款协议，向原抵押贷款的放款人支付以真实市场价值为基准的一笔贷款清偿款（可以说这笔款项将会低于购房者违约情况下所需支付的全额款项，也会低于抵押贷款放款人簿记时登记的价格），然后再由政府向购房者发放一笔本金较低的贷款，虽然贷款本金减少，但至少能够足额抵充政府投资者为购买抵押贷款而支付的金额。加利福尼亚州的圣伯纳迪诺县和安大略市已经开始联合，通过行政权力推行这种方案。所以说，我仍然抱有希望，本书中提倡的为有困难的购房者提供帮助的建议仍然可能变成现实。

通过这种措施使经济重归正轨只是权宜之计，我们并没有打算长期这么做。最理想的状态下，我们仍然要推动一些缓和的、长期的解决方案成为现实。长期的变化至少从表现形式上看应该使得金融体系在没有政府干预的情况下运作得更好，应该重新梳理美国的金融制度，使得它们在金融理论的检验下也显得更合情理。

本书第五章中所提的一些长期建议已经开始崭露头角。本书有一个贯穿始终的主题，那就是通过一些具体的措施，促进金融体系的大众化，使金融行业更好地为公众服务。2010年，美国政府出台了《多德－弗兰克法案》，它被称为自“大萧条”以后美国境内最重要的金融立法，这部法案就包含了一些推进金融大众化的措施。根据该法案要求，成立了金融研究办公室，其职责就在于将原本只有金融从业者知悉的信息传播给美国民众。我在本书中倡议，应该重建新的金融数据库，并且向公众开放，这部法案正好创建了一个这样的信息传播基础架构。同时，该法案要求组建美国消费者金融保护局（最早由伊丽莎白·瓦伦提出的建议），也正好就是本书中所描述的新金融体系的监察者。这部法案还要求成立了住房咨询办公室，这等同于在某种程度上向民众提供了全面的金融建议。2010年出台的《患者保护与平价医疗法案》也同样推动了金融的民主化，并且也改善了信息传播的基础架构。在该法案的支持下，出现了医疗保险交易所，降低了人们在投保医疗保险时，因原本已经存在的疾患而被排除在可保险对象之外的选择性偏见，满足了个人自付医疗风险的需求，维护了属于患者本人的权利。

世界上其他一些国家已经采取了类似的长期措施，或者也正在考虑推出类似的措施。因为国家数量众多，我很难在这里一一描述，但至少从20国集团财政部部长和央行行长会议发布的宣言来看，足以表明这些国家在应对危机方面都朝着推动长期制度改革的方向前进。他们的宣言强调了“金融包容性”的重要地位。20国集团的目标是开发“一套基本的金融包容指标，用于帮助各国政府、政策制定者和股权持有者们，共同着力于在全球范围内衡量金融服务全球可用性的实现进度，并且对这一进程长期跟进”。同时，还会“在数据整理方面，针对金融包容性给予必要的支持”。20国集团的财政部部长们支持由“全球化的市场引导金融的权威”组成的金融消费者保护网，并且“一致认可”金融教育的“重要性”。

本书中所提倡的金融民主化与20国集团宣言中提出的金融包容性有一定的相似之处，但并不完全一样。本书倡导的金融民主化，是鼓励普通人更多地利用金融的风险管理功能来解决日常生活中的担忧，本质上是在倡导更多的金融创新，而不是简单地让更多人能够获取现在已经存在的传统金融服务。

政府很难从这个视角去推动创新，它们通常本能地想到为正在开展的活动提供资助，或者向某些活动征收税款。真正的金融创新需要长期酝酿，通常也都是由私营领域的企业发起的，也是由金融行业的从业者想出来的，政府在创新的过程中更多地扮演支持者和规则制定者的角色。即便如此，创新也需要经过多年规划才会逐渐实现。

本书中介绍的大多数长期政策建议都还沉睡在襁褓中。目前最急需去做的事情，是为那些愿意与客户签订忠诚服务协议和金融顾问们提供资助，而不是让他们从客户身上谋求更多的佣金或其他收入，并且也应该采纳本书中提出的长期建议：持续性调整抵押贷款偿还方案，对住房抵押贷款业务进行根源性的革新。我们需要创设新型的经济测算单位，比如说“篮子”，这会使得编制通胀指数的工作变得更简单，也可以预防人们产生“房价永远不会下跌”这样的错觉。我们需要针对那些对人们生活影响最大的风险创建更多、更全面的新型市场，比如说应对交易房价下跌风险的市场。我们还需要考虑为政府融资提供更好的方式，比如说发行以一国国内生产总值为基础的股票等。我们还需要设计更好的风险管理工具，比如住房权益保险和生计保险。人性的本能缺陷导致我们无法正确地管理风险，由此才引发了金融危机，如果拥有了上述这些重要的革新，我们将可以更好地解决这些问题。

根据历史经验来看，金融创新的进展缓慢并不令人吃惊，这预示着金融体系的根本性改革可能需要持续几十年，甚至几个世纪。本书中提出的一些建议或许让人听上去觉得野心勃勃。要让它们变成现实

则需要更长的时间。所以说，如果要在未来几十年当中促成一些重要的金融创新，那么今天就该动手做一些有实效的事情。我们今天所做的事情都有一个共同的目标，那就是为了更好地服务公众，促进经济早日从此次危机中复苏，并且预防同样的事件再次发生。

## 导论

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“次贷危机”这个名称代表的是在我们经济领域和文化领域中出现的一个历史转折点，其核心内容是指始发于2006年美国住房市场投机泡沫的破灭，进而在现阶段以金融状况恶化以及全球信贷紧缩的形式引发许多国家的连锁反应所带来的一连串后果。次贷危机所释放出来的能量可能会肆虐很多年，我们还将面临更多的间接破坏的威胁。信用市场的混乱状况已经达到了史无前例的程度，并将会对我们的经济体系产生非常严重的影响。尤为重要的是，这场危机已经开始引发一些根本性的社会变化——那些影响我们的消费习惯、价值观及人与人之间相互关系的变化。从此以后，我们所有人的生活及工作交往的方式都会与以往有所不同。

如果让这些破坏性的变化随意蔓延，这些变化所造成的破坏将不只限于经济方面，还将危及我们社会的基础——那些人与人之间的互信、乐观以及共同的习惯和生活方式，而且这种破坏的后果将会在今后的数十年间持续不断地显现出来。对社会基础本身的评估非常困难，特别是那些很小、很分散的单元及细节很容易被忽略。但社会基础确实实处于危险之中，在考虑应对次贷危机的解决方案时，我们应该把它摆放到那些我们所关注问题的中心位置。

历史无数次证明了经济政策在维护社会基础方面所能发挥的重要影响。第一次世界大战后的欧洲，就曾经遭受了一份特殊的经济协定所带来的严重破坏，这份经济协定就是《凡尔赛和约》。在这份标志着战争结束的条约中，规定了对德国的惩罚性战争赔款，德国需要赔付的金额远远超出了它自身的偿付能力。约翰·梅纳德·凯恩斯在凡尔赛当即以从英国代表团辞职作为抗议，并于1919年出版了《和平的



经济后果》一书，预言该条约将会导致灾难性的后果。那时凯恩斯的说法没能引起任何人的重视，该条约的效力也一直在持续，然而事实上德国却从未能支付规定的赔款。凯恩斯所预言的灾难还是降临了，只是换了另外一种方式，一种强烈的民族仇恨的方式，而且，仅仅一代人之后，第二次世界大战就爆发了。

一场具有可比性的灾难——虽然不属于完全相同的性质——今天正在酝酿之中，类似的忧虑正在敲打着我们的神经。又一次，很多人由于不能偿付贷款正被债主强行追讨；又一次，他们觉得出现的这些问题并不是他们的责任，这些问题是由一种他们无法控制的力量所引发的；又一次，他们眼看着曾经十分值得信赖的那些经济机构在他们周围一个接一个地轰然倒下；又一次，他们觉得被骗了——被灌输那些过分乐观的思想，以致被诱使去冒过度的风险。

目前，社会和经济的躁动与无序带来的破坏是什么性质、有多大程度，现在还很难预测，但是若干年的经济增长减速已基本成为定局。我们因此得准备过若干年的苦日子，就像瑞典和墨西哥在20世纪90年代早期出现按揭贷款泛滥后的情形。甚至可能出现另一个“失去的十年”，像墨西哥高油价带来消费热后在20世纪80年代所遭受的痛苦，或者像日本20世纪80年代房地产泡沫破裂后在20世纪90年代所经历的磨难。

在本书中，我认为产生次贷危机的房地产泡沫之所以最终能增长到如此大的程度，是因为作为一个社会整体，我们并不完全了解投机泡沫，也不知道怎么去处理投机泡沫。甚至那些掌握着全面资讯的有识之士——他们当然从历史的教训中知道泡沫的存在，甚至还可以转述其中一些具体的案例——也并不完全清楚次贷危机酝酿过程中的真实情况。商界及政府的领导人既不知道如何处理这种局面，也没有建立起相应的新的金融体制来对此进行必要的管理。

全球性金融危机的根本原因是房地产泡沫（早先的股票市场泡沫也对此“贡献”颇多）造成的心理恐慌，这个观点我们以前已经进行了很充分的阐述。但是很显然，大多数人对这个观点并没有去认真理解，至少他们并不完全认同由这个观点所推导出来的那些结论。在分析危机原因的时候，人们通常把它完全归结于这样的几类原因：按揭贷款人的欺诈，证券投资人、对冲基金、评级机构的贪得无厌，甚至是美国联邦储备委员会（美联储）前主席艾伦·格林斯潘所犯下的错误。

现在，是让我们去正确认识正在发生的这一切，并采取切实的步骤，重新构筑住房市场和金融市场经济体系的制度基础的时候了。这样做就意味着在采用短期手段降低危机风险程度的同时，还应着眼于一些长期的变革，以控制泡沫的增长，稳定住房市场以及更大范围的金融市场，为房主及商业活动提供更大的金融保障，而要想做到这一点，就必须充分放手让那些新的观念去促进金融创新。

## 泡沫里的危机

次级抵押贷款市场的问题始现于2007年的美国，之后蔓延到了整个世界。从20世纪90年代后期开始，房价及房屋产权交易的热度不断上升，市场一派欣欣向荣的景象，投资房地产似乎成了所有人保障财务安全，甚至是追逐财富的最有效途径。

1997~2005年间，美国住房自有率的各项指标在所有地区、所有年龄组、所有种族组、所有收入组都出现了全面上升。根据美国统计局的资料，当期住房自有率从65.7%上升到68.9%（其中房主自住房的比例至少有11.5%的增长）。据统计，美国住房自有率增长最快的分布状况为：西部地区、35岁以下年龄组、收入低于平均线的人群、拉美及黑人族群。

鼓励居者有其屋是一个意义深远而且令人肃然起敬的目标，它传达出来的是一种参与意识以及国家认同感，而且较高住房自有率对一个健康的社会也有着相当多的益处。在本章的后面部分，我将回顾美国在20世纪推广居者有其屋时所采用的机制及其演变过程。但美国出现的次贷危机说明了推广居者有其屋时如果走得太远，也会出现问题。居者有其屋当然有很多好处，但这种方式并非对所有人在所有情况下都是最理想的居住选择。我们现在已经开始接受这个现实了，因为自2005年起，美国的住房自有率已经开始出现下降。

次贷危机的成因链条是怎样的呢？过分冒进的抵押贷款人、丧失原则的评估师以及信心满满的借款人，共同合力推动了住房市场的繁荣。按揭的始作俑者按预先做好的计划准备着将这些按揭转售给券商，因此，他们对偿债的风险审查并不是十分上心。通常情况下，他们对借款人还款能力的评估一般都只是走走过场，很少通过国税局核实借款人的收入状况，虽然之前他们都例行公事地要求对方签署了一份允许做这个核查的委托书。有时候，这些放款人还会怂恿那些信用记录历史很短、很天真的人进入到急速膨胀的次级抵押贷款市场里来借钱。这些按揭被以一种非常复杂而且颇为神秘的方式，通过打包、出售、转售等不同的手段转让给了世界各地的投资人，这套程序为这场危机搭建了一个实实在在的国际化的平台。住房市场的泡沫，加上泡沫与按揭证券化过程中的激励机制间的相互作用，还有被放大的道德风险，进一步刺激了按揭贷款人中的某些“害群之马”，使得他们更加胆大妄为。

高房价使得建造房子变成了一项高利润的业务，2005年第四季度住房投资在美国国内生产总值（GDP）中的比例上升到了6.3%，是1950~1951年那波住房繁荣以来的最高水平。尽管美国国家领导人对前景的展望总是一片光明，但随着大量的新房涌入市场，美国的房价在2006年中期还是开始下跌了。由于价格下跌成加速的态势，住宅建筑市场的繁荣率先见顶了。

与此同时，按揭利率也结束了刚开始那段时期的“优惠”，开始被调高了。借款人，特别是次级抵押贷款的借款人，开始出现断供的情况，原因可能是欠款的金额超出了房屋的市场价值，也有可能是用现在的收入无法再支付高企的月供。那些金融机构曾经热情地参与到在当时似乎是一个勇敢者新世界的居者有其屋推广计划，以及神奇的金融创新中，而现在大多数都处于不同程度的危难之中。国际信贷市场开始出现资金呆滞的迹象。

我们现在基本上可以确定，我们必须做好面对一场严重的经济紧缩的心理准备，这场紧缩将会给那些处于危机中心的次级抵押贷款借贷者，以及散布在这些借贷者身后的数百万人民带来深重的灾难。美国的银行及经纪公司损失惨重，花旗银行、美林证券及摩根士丹利的主要领导人都丢掉了工作。目前整个社会的局势依然十分严峻。

危机还在向住房市场以外的领域蔓延。信用卡及汽车贷款业务的违约率也出现了可怕的攀升。地方债券保险人的信用评级出现了下降的苗头，这种情况带来的直接风险是，市场上已经出现的这些问题可能会波及到国家及地方政府的财政系统。商业票据市场遭受了沉重的打击，企业融资债券市场也同样受到了影响。

次贷危机也不会止步于美国的边境。在整个世界范围内，繁荣的地产市场已经出现了见顶的迹象，最起码也是走平的迹象。金融危机的影响已经渗入到其他国家，下面的情况可以作为例证：德国的德意志工业银行和萨克森银行濒临破产，法国巴黎银行管理的几只基金已经清盘，英国北岩银行出现了挤兑。

紧接着，这些在美国以外的地方出现的问题，又将其影响反馈回到美国，引发了美元的疲软、股市的动荡以及一系列新的金融问题，比如美国最负盛名的投资银行贝尔斯登公司所面临的困境。这个残酷的反馈循环系统——在美国产生的问题从美国流到其他国家，然后又流回到美国——当然不只是简单的重复。

## 不要因噎废食

目前的经济危机常常被某些人作为要求“复辟”——退回到过去那种简单的金融交易方式上的理由，这种想法当然是完全错误的。事实上，目前的局势正好给了我们一个机会，让我们可以更加努力地去认真思考并切实改进我们的风险管理制度，进一步巩固和完善我们发展中的金融系统的基础架构。尽管发生了现在的这场危机，但毋庸置疑，我们现在拥有的这个非常现代的金融体系在最近的数十年间取得了很多历史性的成就，并且成为了经济增长的强大引擎，所涉及的范围包括支持大学重大项目的研究，以及建设学校和医院等。

每一次危机都孕育着变革的种子。我们可以用积极的方法重新构建金融活动的制度框架，以稳定经济秩序，重新激发各个国家的财富梦想，大力支持那些金融创新过程中的佼佼者，让经过这场危机洗礼后的世界甚至比没有出现过危机的世界更加美好。现在，这样的时机已经成熟了。

本书尝试去揭示现在正横行世界的次贷危机的真实面目，并为认识这样一种制度性涅槃奠定基础。本书认为，常识性的短期修补和更深层次的长期改进都将把我们带进一个充满着不确定性的未来。本书不可能包罗其他人所提出的解决危机的全部建议——理由很简单，这类建议简直就是汗牛充栋。本书将设定一些更大的目标，使未来的最终解决方案极有可能围绕着这些目标产生出来。

本书针对的读者群遍布全世界。次贷危机现在是一个实实在在的国际问题，这里所提供的解决方案原则上也可以被其他国家所采用。

正如我们已经知道的，机制变革意味着提供一个更强大的架构，在这个架构下，有足够的空间供我们的地产及金融市场运行。无论火车的动力有多好，技术装备水平有多高，它必须与供其运行的铁轨相

适应。政策机制与保险机制是供金融市场和房地产市场运行的两条铁轨。然而现有的风险管理机制已经老朽，极不稳定。我们现在是在古老的铁轨上跑高速列车。政府和商界的领导人必须仔细检查铁轨及枕木，并进行必要的更换。次贷危机解决方案的内容全部都是关于机制变革的：超越短期修补的愿景，以及改革上层建筑的勇气。

## 上次房地产市场危机留下的教训

尽管次贷危机是全球性的，但要了解危机的本源，还应该回到它始发的地方，回到它始发的年代，即20世纪的美国。在这次次贷问题发生之前，美国最近的一次大规模的住房市场危机发生在1925~1933年间。在这期间，住房价格总共下跌了30%，失业率在大萧条的顶峰时期上升到了25%。危机毫不留情地暴露了那个时代金融体制的缺陷。当时，大多数人借了5年期或更短的短期按揭贷款，他们满心希望能在贷款到期前申请展期。但是，由于危机爆发，借款人慢慢地明白，他们不可能继续获得融资支持，只能眼睁睁地看着自己的房子被债主收走。

当时还没有相应的公共机制来保护借款人免受由于未能获得新的按揭而失去家园的痛苦。不过由于高层领导人的不懈努力，对制度框架进行了相应的变革，最终避免了大规模民众无家可归现象的出现，恢复重建的目标也最终得以实现。

这场历史性危机中的政策手法应该可以在制定针对类似问题的解决方案时加以借鉴，用于解决我们现在所面临的危机。由于大萧条期间房地产市场的问题恶化，私营及公共领域出现了很多影响深远的重大的创新。尽管富兰克林·罗斯福的新政在历史上备受关注，但这些意义重大的变革的出现其实并不能完全归功于某一个人所制定的政策。准确地说，它所反映的是政府及商界领导人齐心协力去认识危

机，并在充分了解危机的基础上，对美国经济的体制基础进行必要改革所做的共同努力。

在全美房地产经纪人协会（现在的美国房地产经纪人协会的前身）的提议下，美国国会在20世纪30年代早期建立了新的联邦住宅贷款银行体系，这个体系与1913年依法建立起来的联邦储备体系平行。联邦储备体系拥有12家区域性银行，新的联邦住宅贷款银行体系也拥有同等规模的机构；联邦储备体系拥有对其成员银行进行资产折让的权力，联邦住宅贷款银行体系也能向按揭发起人提供同样的帮助。这是在应对大规模危机时的一个颇为大胆的做法。联邦住宅贷款银行体系此后曾经做过一些调整，但直到今天它仍然和我们共同生活在一起，并通过向按揭贷款提供资助来帮助我们应对现在的这场危机。

私营领域的变革也同样充满新意。1932年，地产评估业者们走到一起，成立了美国地产评估师协会，使它成为了一个真正意义上的专业组织，该组织现在叫美国评估协会，这个名称是在1991年与地产评估师组织合并后才正式启用的。而早在20世纪30年代早期，协会的正式成员就已经在公司名称后加上M.A.I.（Member, Appraisal Institute的缩写）标志自己是美国评估协会成员单位。在危机的压力下，这个新生的专业评估行业开始采用信息技术的最新成果——雷明顿兰德公司和国际商业机器公司（IBM）生产的穿孔卡和运算系统，来对数据进行批量处理。这些20世纪30年代住房市场危机时产生于私营领域的创新成果一直沿用到今天，并通过为按揭贷款人提供更为可靠的房屋估值，帮助防范——至少是限制——危机的进一步恶化。

当时，为应对很多房屋所有人所面临的丧失抵押物赎回权的冲击，立法层面也出现了里程碑式的变革。1933年，也就是赫伯特·胡佛政府任期快届满的时候，美国国会通过了新的《破产法》，该法第一次让大多数普通的工薪阶层可以通过破产保护来保障自己的权益。从这个意义上说，危机所引发的改革不仅稳定了房地产业，还进一步

推进了当时金融体制的民主化进程，维护了公共利益，使所有人都可以受益于更有效率的金融技术。

改革并未就此止步。1933年，罗斯福就任总统后，美国国会成立了住房房主贷款公司（the Home Owners' Loan Corporation，简称HOLC），向地方的住房金融机构提供贷款，使高风险的住房按揭转变为担保性质，与此同时，对住房按揭提供政府补贴。住房房主贷款公司做的并非只是提供补贴那么简单，而是改变了按揭行业最基本的规则。住房房主贷款公司坚持，由它资助的新按揭的贷款期限必须是15年，利率固定而且自选分期还款，这就意味着每月的还款额是基本固定的，由此也就避免了到期日巨额还款的压力。

1934年，美国国会成立了联邦住宅管理局（the Federal Housing Administration，简称FHA），目的是帮助那些当时还没有能力买房的人圆自己的住房梦。联邦住宅管理局在改进按揭机制方面走得甚至比住房房主贷款公司还要远：将贷款期限提高到20年，同时也像住房房主贷款公司一样，要求按揭的利率固定，自选分期还款。这套办法开始慢慢地演变成了现在很常见的固定利率按揭贷款模式，这种始于20世纪50年代的模式使按揭渐渐成为了一种长达30年的契约，这种做法同样也得到了联邦住宅管理局的支持。

还是在1934年，美国国会批准成立联邦存款保险公司（the Federal Deposit Insurance Corporation），为银行体系提供保险服务，防范再次发生类似1933年出现的与房地产市场危机关联的可怕的银行倒闭现象。尽管在国家层面上提供保险在当时还是一个相当激进的新生事物，但它运行良好，从此以后，美国没有再出现过银行挤兑的现象。

另一个出现在1934年的影响更深远的创新，是美国国会批准成立证券交易委员会（the Securities and Exchange Commission，简称SEC），该委员会是一家从一开始就致力于保证金融市场良好运转的管



理机构。美国证券交易委员会建设性地处理与金融机构的关系，按照对各方均公平、有利的原则开展工作。

1938年，美国国会成立联邦全国按揭协会（Federal National Mortgage Association），不久被戏称为房利美（Fannie Mae），现在这个戏称已经成为了正式的名称。房利美对按揭行业的支持又更进一步，最终培育出了蓬勃发展的按揭债券化市场。

为应对20世纪30年代金融危机而推出的各项措施的合理性很清楚地反映在相应建立起来的机构的寿命上：除了住房房主贷款公司外，其他所有机构目前都还在运行。不仅如此，这些机构还成为了全世界类似机构的榜样。这些机构在全球的推广持续了很多年，有些是数十年，现在的情况是，每一个有着先进经济体制的国家都有一个类似证券交易委员会的机构，虽然有些国家的类似机构到20世纪90年代才建立起来。另外，世界上的主要国家也都为银行和相关机构提供储蓄保险，以鼓励低收入者购买住房。

## 泡沫破灭后的救急式处置

最近一次的次贷危机相当严重，但政府做出的反应与20世纪30年代的情况比起来令人失望，而且从所涉及的范围看，推出的措施总体来说也还远远不够。

乔治·W·布什在2007年夏天宣布了联邦住宅管理局住房保全再融资保险计划（FHASecure）救市行动，旨在帮助那些浮动利率按揭贷款人免受高利率的困扰。但是，就算该救市计划预定的目标全部都得以实现，这个计划能帮助贷款人得到的也只是由房利美担保的按揭，只占全部按揭总数的大约2%。而且从实际的效果来看，差距就更大了。

主流动性增强管道（The Master Liquidity Enhancement Conduit，简称MLEC）救市计划由美国财政部部长小亨利·M·保尔森于2007年秋季提出，这个救市计划的总规模就算是按其最大的可能计算，也不足大萧条时代改革的产物——现在仍在运转的联邦住宅贷款银行体系的1/10。而且随着计划停滞，主流动性增强管道救市计划也被完全取消了。

美国证券化论坛于2007年底推出的可调利率按揭重置标准的实施，虽然会带来对按揭赔付额的调整，但能纳入盘子的金额还不到联邦存款保险公司所承保的存款额的1%。

根据布什政府公布的2008年2月的谈判结果，救生索计划（Project Lifeline）抵押失效到期日的宽限期只有30天，而且，这仅仅是一些主要的放款人对总统的呼吁所做出的表态。

已颁布的其他措施还包括美国联邦储备局的降息，2007年12月21日公布的定期标售工具（Term Auction Facility，简称TAF），2008年3月11日公布的定期证券借贷工具（Term Securities Lending Facility，简称TSLF），2008年3月16日公布的一级交易商信贷工具（Primary Dealer Credit Facility，简称PDCF），此外还有2008年2月13日由布什总统签署生效的《经济刺激法案》。这些措施或许会有些效果，但一揽子经济刺激计划里的减税方案、定期标售工具、定期证券借贷工具和一级交易商信贷工具贷款的总规模，合计也只占到美国年国内生产总值的1%，尽管所涉及的规模还在增长中，但与现在已经出现的这些问题所处的数量级根本无法匹配。就算是救市所覆盖的范围能够得到进一步的扩展，我们还是无法知道这些具体的措施对解决根本性的信心危机——这是本次次贷危机中起决定性作用的危机——能起到多大作用。

上面的所有这些措施中没有任何一项可以算得上是真正的机制创新，没有一个能开创出更好的局面来支持我们的房地产市场和金融市

场。它们所起的作用仅仅是快速修补性质的，并没能从全方位解决问题的角度切入。

美国国会应对这场危机的反应很慢。参议员查尔斯·舒默在2007年度美国国会联合经济委员会作证时（我当时也在现场）说道：“我担心我们现在还不清楚所面临的问题的严重性。我们的应对政策与今后将要面临的危险的数量级远不匹配。”这番话是舒默在笔者动笔前几个月时说的，此后，美国联邦政府和国会对危机给予了更多的关注，但现在还不清楚他们是否有效地调动解决目前困境所需要的巨大资源。危机在进一步恶化，并开始消耗大量的政府资源，甚至让这些资源本身的持续都可能成为新问题。危机的影响在持续深化，而真正算得上是根本性应对措施的方案，我们仍然一项都还没有见到。

## 面向未来的机构改革架构

很多记者无数次地问我，对由次贷危机引发的长期衰退的可能性有什么看法；只有极少数人会问我对解决由次贷危机引发的那些根本性问题的意见和建议，或者探寻我们怎么设立新的经过变革后的机制，使我们的社会免遭危机带来的那些根本性问题的危害。事实上，这些问题才是我们真正需要自问的问题。想要最大程度地降低类似这次次贷危机所带来的金融风险对我们的危害，制订计划的时候必须基于下面两条原则。

**从短期看，政府及商界领导人首先必须尽快解决已经出现的这些泡沫以及泡沫破灭所带来的后果。**船已经开始下沉，在我们采取其他措施前，首先必须施救。事实上，我们应该先救出那些情况特别糟糕的人，同时在某些极端的情况下安排一些具体的救市措施，以防止我们的经济体系崩溃。这些救市的安排应该及时、准确，不能出现任何不公正、不公平的问题。在这种情况下，我们还需要政府进行短期干

预，对那些行走在断供边缘、摇摇欲坠的按揭借款人提供必要的支持，这方面或许可以借鉴20世纪30年代的住房房主贷款公司的做法。

从长远看，我们上面已经提到过，我们需要建设更加强大的风险管理机制，抑制泡沫的增长——泡沫的不断增长是产生目前次贷危机等类似事件的根源——让我们社会的全体成员今后尽可能地不会再次受到此类事件的困扰，与此同时，还要保证整个社会的经济发展水平不受到负面的影响。

本书提出的次贷危机解决方案期望达到以下目标。

**第一，改进金融信息基础设施，以便让尽可能多的人受益于更加完善的金融活动、金融产品及金融服务。**这意味着我们应该向更大范围的消费者提供更丰富的财经资讯、更有效的财务建议，将他们更好地置于社会体制的保护之下，同时，还应该采用一套更为先进的经济度量单位体系。这些措施将构建起必要的基础，使所有的消费者及房主在做财务决策的时候能够基于最充分的资讯而不是仅凭经验，甚至是异想天开。完善的财经资讯及更好的决策手段，能够让消费者自己有能力监控泡沫的影响范围。

**第二，扩展金融市场的范围，将更广泛的经济风险纳入其中。**这样的一个动议所涵盖的内容是马上大规模地扩大市场规模，这不仅只是为了解决房地产市场的风险，同时，也是为了解决其他关键性的经济风险。有了这些更加广泛的市场，加上一个更加可靠的信息基础架构，就可以为各种各样抑制泡沫增长的措施提供基础的金融保障。

**第三，开发零售金融工具——包括联动型按揭、住宅产权保险以及生计保险，为消费者提供更大的保障。**今天的家庭拥有房产的典型方式是资本投资的形式。房屋所表现出来的是一种不动产高度暴露于单一、固定的杠杆风险下的资产安排——但这可能是人们可以想象到的最危险的资产方式。标准的按揭没有为市场发生变化可能导致的还

款困难提供保护，但其实按揭条款中能够而且也应该可以设计一些确保借款人从容应对他有可能面临的那些主要风险的条款，来对这些变化做出补救性的安排。其他的零售工具可以为那些已经付清按揭的房主提供保护，同时也可以保护那些没有购买住房的人免受经济衰退的困扰。

如果我们能够坚定不移地为实现这些目标而奋斗，我们所能做到的就不仅仅是控制住那些引发危机——比如像我们今天所面临的次贷危机的泡沫，我们还可以为应对今后可能出现的危机提供更强大的保护，鼓励那些更加规范的金融行为，促进家庭财富的增长，强化社会结构，并为经济的更加稳定以及更快增长创造条件。

要把这里提到的所有措施以及其他重要的体制变革的方方面面都付诸实施，将会是一项非常艰巨的任务。这应该是社会各阶层领导者们一个共同的使命，而不仅仅是总统或是首相内部班子里某几个人的工作。它需要政策制定者、商界精英、传媒及学界的共同努力。幸运的是，我们现在还有时间、有资源、有智力资本来完成它——关键是我们必须认识到变革的紧迫性和必要性。

## 从次贷危机到金融民主

尽管在谈论目前这场金融危机的各种公开场合中提及这个主题的人还很少，但20世纪90年代出现的次贷按揭反映了这样一种趋势（虽然还处于初始阶段）——金融创新所带来的好处将惠及越来越多的人。换句话说，就是开始走向金融民主化。那些重量级的评论家，从美联储前主席艾伦·格林斯潘到已故的房地产经济学家爱德华·格兰里奇都认为，次级抵押贷款是一个有着积极意义的新生事物（尽管其间曾经发生过一些滥贷的个案），因为它有效地将拥有固定资产的特权扩展到了千千万万的低收入人群中。

但是，虽然这些次级抵押贷款有着崇高的社会抱负，但它们的实施过程却是一个彻头彻尾的灾难：它们需要有一部金融机器给它们提供支持和服务，但又缺乏必要的风险管理机制来支撑这部越来越复杂的金融机器的运转——这就是本书的主题。

如果能按安全、高效、前瞻的原则设计风险管理机制，并作为今后市场活动的基础，次贷危机不单可以被化解掉，而且化解后还可以催生出一种为金融民主化服务的良好氛围。

这种努力的第一个前提是，我们需要更深刻地理解房地产行业所固有的风险，而且可以掌握更快速分散这些风险的诀窍。然而，现在的这些次贷按揭——尽管包含有民主的诉求——在启动的时候根本就没有很清楚地认识到房地产行业自身所具有的风险。

第二个前提是，在进行现代金融技术创新的民主化扩展时，必须更加透彻地理解人类的心理反应规律，以确保风险的蔓延能同步孕育出正常的经济刺激，控制道德风险。次贷危机从本源上说是根本性的心理问题，因为所有这一切都是泡沫。危机的产生不是因为天气影响或者火山爆发，而是因为没有预见到那些其实已经非常明显的风险——那种建立在对收益的过度追逐上的“非理性繁荣”，人们买进了一个增长的泡沫。

要彻底解决次贷危机揭示出来的这些经济问题，需要我们发动全社会的力量，在考虑有效的风险防范的同时，更加努力地去促进现代金融技术创新，同时，更加努力地去以新政时代改革者的视野，挣脱束缚去想，放开手脚去干。在这个过程中，金融民主化起着至关重要的作用：通过分散风险，为经济生活提供更加牢固的基础。从这个意义上说，金融民主并不只是一个结果，同时也是为其他方面提供服务的手段，当然，这种服务也会产生与其付出相称的结果：通过金融手段促进了经济的稳定及繁荣。

金融民主的内涵已经在所谓的微观金融革命中做出了明确的定义。2006年的诺贝尔和平奖授予了穆罕默德·尤努斯和他的孟加拉乡村银行，为他们正在发展中的创新活动注入了新的动力。微观金融革命由一系列新机制组成，它们放贷给那些最小的经济体，通常还是在世界上最不发达的地区。

尤努斯得到了来自中国、俄罗斯以及世界上其他很多国家领导人的赞赏。来自更广泛的世界新兴国家的领导人也对把金融服务带给更多的人表示出了相当浓厚的兴趣。墨西哥总统费利佩·卡尔德龙已经召集专家制定出政策，要在该国推广“金融文化”。美洲开发银行也已采取行动，要将其金融服务范围扩展到覆盖整个拉丁美洲的全部人口。

本书提出的次贷危机解决方案中的部分内容与这些计划有着相同的脉络，但也有差别。差别最明显的一个方面是，本书所提及的措施针对的是最发达的国家。本书所讨论的是通过为全体民众建设新的金融基础体系，来应对这场次贷危机以及未来类似的危机，并且通过采用我们已经掌握的最先进的技术来为这个目的服务。

## 本书的思路

在本书后面的章节，我将通过对次贷危机的各种维度及心理本原的分析，对目前的这场次贷危机进行尽可能完整的描述。然后，我会详细地介绍各种短期及长期的解决方案。贯穿全文所强调的是采取行动的紧迫性。改革制度框架是一项急需马上着手的工作，如果我们想控制住次贷危机造成的损失，并从这场危机中有所收获的话，就必须刻不容缓地启动这项工作，只有这样，我们才能向一个新的、更完善的经济体系迈进。

## 第一章 历史上的房地产市场

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就算房地产市场泡沫不能算是次贷危机和我们现在面临的在更大范围内出现的经济危机的根本原因，肯定也是一个主要的原因。那种认为不动产价格只会永远向上涨，而且是年复一年节节攀升的看法，制造出了一种虚假繁荣的氛围，使放贷人和金融机构降低了贷款的准入门槛，弱化了针对可能出现的违约情况的风险管理。现在，我们担心的违约现象出现了，不仅规模巨大，而且还具有传染性。

这个泡沫的破灭带动了全美乃至全球经济文明的另外一些方面出现了一连串的变化，这些变化正在引起人们的密切关注。根据标准普尔/凯斯-席勒住宅价格指数——我有幸参与了该指数的设计——公布的数据，自2006年的顶峰算起，以扣除通胀因素的实际价格计算的美国住房价格已经下降了将近15%。在某些城市和地区，真实跌幅已经达到25%，甚至更多。

到危机结束前，某些城市和地区的真实住房价格与近期的历史最高点位相比较，甚至可能会出现高达40%~50%的跌幅。这么巨大的价格下跌幅度将使美国的经济体系面临严峻的考验。现在已经记录在案的这些幅度相对还较小的价格下跌，在为数众多的按揭贷款人中引发了比例还不算太大的按揭拖欠危机，不过，与将来可能会逐渐显现的严重后果相比，目前对发行、持有这些按揭以及为这些按揭提供保险的金融机构所产生的影响可能还微不足道。

大多数对冲基金基本上都是高度杠杆化的，资产价值的进一步下滑会将那些现在看起来貌似强大的基金深深地按进水里，而这些基金的破产又会反过来对银行和其他金融机构施加更大的压力。我们现在



看到的在美国出现的危机可能只是即将到来的更大问题的前兆。正当我们满怀希望地把次级抵押贷款问题当作一部独幕剧看待，认为大结局马上就要到来的时候，事实上它很可能只是一部漫长而复杂的多幕悲剧的第一幕。

## 以史为鉴

2004年，我着手写作《非理性繁荣》的第二版，准备对内容做必要的更新，并将这本主要讲20世纪90年代股票市场繁荣的书，加入21世纪初房地产繁荣的内容。当时，我打算在书里对住房市场的长期情况做一个分析，所采用的分析方法与我在该书第一版里用来分析股票市场的方法类似。

让我大吃一惊的是，我问过的所有人都说，根本没有住房价格长期走势的任何数据——美国的没有，其他任何国家的都没有。这是一个非常发人深省的现象。如果说房地产繁荣是一件如此美妙的经济盛事，你能否想象得到，居然没有任何人关心类似的事情以前是否发生过，产生过什么样的后果。非常让人疑惑不解的一个事实是，似乎根本没有谁对30年来或之前发生过什么有一丁点儿的兴趣。这是人类行为方面的一个活生生的教训，也是人类本性反复无常的有力注解。很明显，没有任何人认真评估过房地产市场的真实价值，以及房地产市场过度投机可能产生的潜在杀伤力。

我还发现，在20世纪前后的不同时间段里，经济学家确实曾经先后建立过一些住房的价格指数，但都是些相对比较短期的价格指数。一直到最近的这几十年间，都没有人能以实时的方式来提供这些数据。因此，早期的价格指数只能算是一些历史数据的孤立碎片。

在这种情况下，我开发了自己的美国现有住房价格指数，时间跨度一直向前追溯到1890年。我所采用的方式是把各种已有的看起来质量最高的数据系列组合在一起。我只选择那些为提供标准的、没做过任何改变的房子的估值而设计的指数，以便价格指数能够真实反映投资者投资住房所能获得的收益，同时又不受随着时间推移出现新建房子越来越大、越来越好的正常趋势的影响。在着手这个工作的时候，我根本无法找到1934~1953年间的任何数据，因此，我只能请我的研究助手们根据旧报纸上刊登的售房广告所标出的价格，自己列表来弥补这段空白。这段时期现在仍然是我的指数中最薄弱的环节，但对我来说，为弥补这段空白，我已经尽了自己最大的努力。

在《非理性繁荣》第二版(2005年版)的图1-1中，我给出了1890~2004年间真实（已按消费价格通胀率进行过修正）的住房价格指数，同时还有建筑成本、美国人口数量以及长期利率等数据。同样的图表我也放到了这本书里，也叫图1-1，但已经进行了必要的更新，2004年以后的曲线用灰色而不是黑色表示。当时，在《非理性繁荣》第二版中我曾经这样说过——这个阶段的房价看上去相当反常，就像是“刚刚发射的火箭”。美国总体的住房价格在1997~2006年的高峰期间上涨了85%。住房的价格显然不可能随表中其他变量的变化而调整，因此看起来就像是火箭要掉回到地球上。

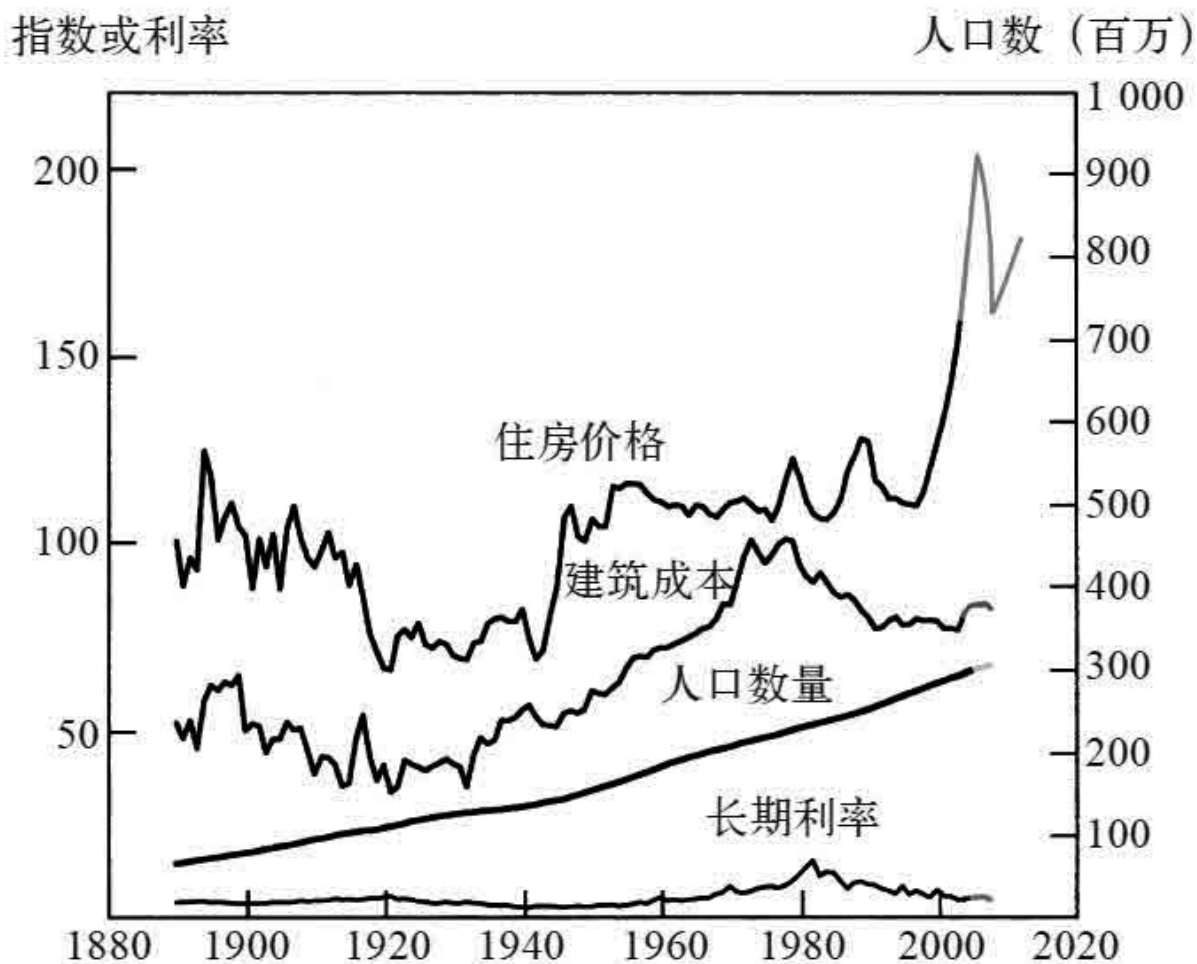


图1 - 1 1890~2008年美国真实住房价格与同期年度的建筑成本、人口及长期利率

资料来源：摘自《非理性繁荣》第二版，本书有更新，更新部分用灰色表示。住房价格指数以季度为单位给出了2007年第一季度至2008年第一季度的数据

正像住房价格曲线上灰色部分很清楚地表示出来的那样，最新的数据表明房价出现了惨烈的暴跌。火箭已经开始下坠，见顶后的崩盘根本没有办法用其他变量出现任何重大改变来解释。

住房价格与建筑成本比值在2006年市场加速冲顶的时候出现急剧上扬，同时，住房价格与房租比值、住房价格与个人收入比值也同样急剧上扬。现在，这些数据下降了。住房价格与经济基本面的这种错位现象，很清楚地表明经济形势极不稳定；同时也说明，在价格进行

大规模修正之前，问题不可能得到根本性的解决。这基本符合一般经济学规律的特性——尽管短期内也许会背离，但在长期条件下，规律最终总是要表现出其神圣的不可违背的一面来。

## 价格路径的多样性

始于20世纪90年代末的美国房价暴涨似乎是史无前例的，但事实上并不是真的“史无前例”，你只要研究一下各个具体城市的情况就知道，某些城市住房市场历史上曾出现过非常壮观的繁荣景象。但在最近的这一波繁荣浪潮中，有幸经历这种繁荣的城市数量在急剧增加。图1-2给出了主要都市区域的一些例子，同样也用标准普尔/凯斯-席勒住宅价格指数对价格数据进行了通货膨胀修正。数据揭示了不同城市价格走势的差异。不动产市场仍然是区位依赖型的市场。但是，尽管2006年见顶前不同城市间存在差异，但所有这些价格现在都无一例外地处于下跌之中，下跌的速度大致上与上涨的速度成反向等比。数据显示，与相对价格比较稳定的芝加哥和纽约等城市比较起来，拉斯韦加斯、迈阿密和旧金山等城市房价都具有在2006年以前涨速较快，同时后期的跌速也较快的特点。

真实住房  
价格指数  
(1987=100)

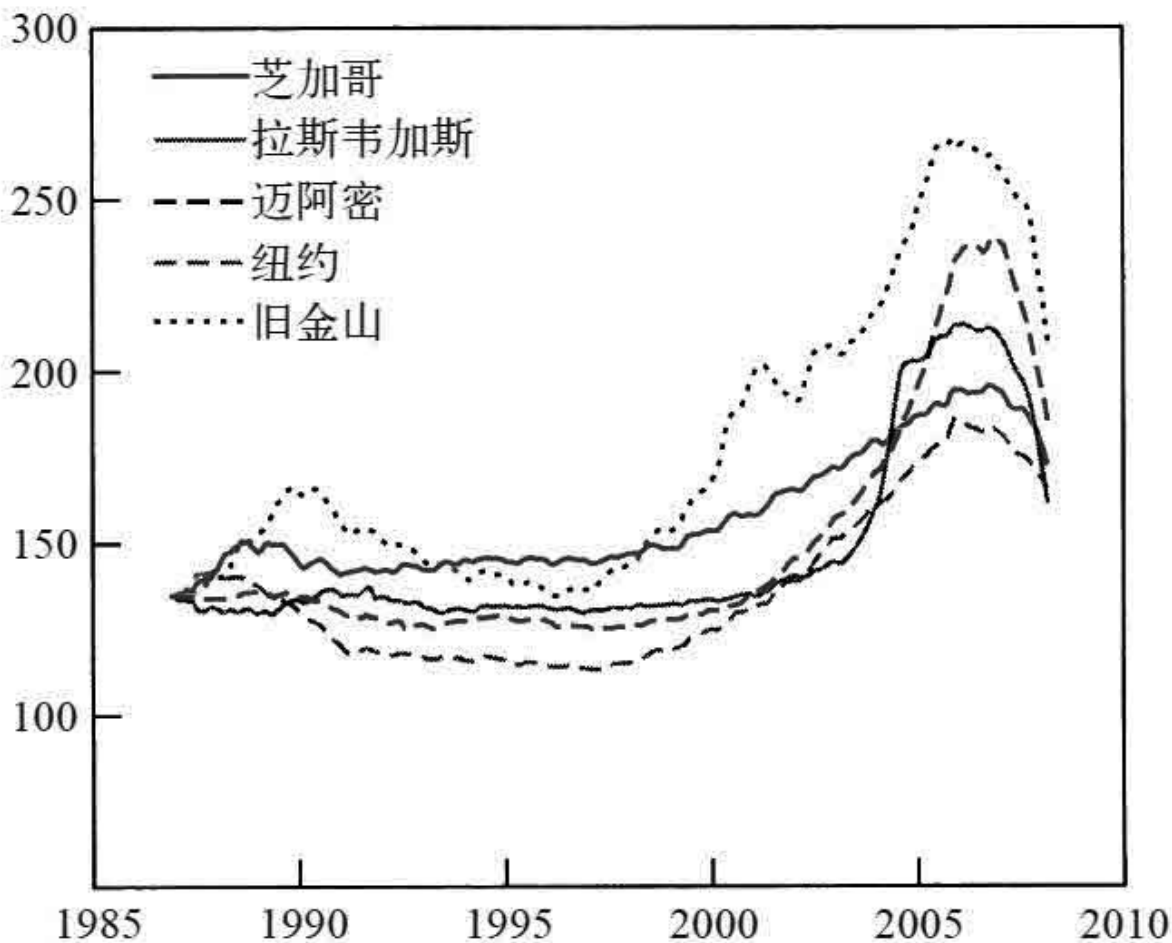


图1-2 样本城市真实住房价格指数  
(以月为单位, 1983年1月至2008年3月)

资料来源: 由本书作者根据[www.homeprice.standardandpoors.com](http://www.homeprice.standardandpoors.com)和[www.bls.gov](http://www.bls.gov)网站提供的数据进行计算

除了不同都市区域的差异外, 房地产市场内部的不同房产类型也存在差异。我们注意到, 按照住房的不同价格可以划分出不同的独立市场: 低价住房在同一个时间段内的表现与高价住房市场的差异很

大。图1-3给出了旧金山都市区的例子，划分为三个不同的价格区间。

经过最低价格区间，市场在最近的繁荣中表现出了最大的涨幅，并且一直持续到2006年，之后出现了最大的跌幅。同样的现象可以在其他很多城市中观察到。对于导致这种价格区间差异的原因，我们目前了解得还不是非常透彻，但是次级抵押贷款现象是一个可以用来对此进行解释的很好的理由。住房价格急剧上升的原因是自2001年起出现的次级抵押贷款规模的快速膨胀，这些快速增加的贷款被提供给了那些低收入购房者，并用于资助他们购买低价住房和其他相关的投资工具。2006年的繁荣期见顶后，低价住房价格的较快下跌与该市场出现还款拖欠和丧失抵押物赎回权的问题也是同步的。

真实住房  
价格指数  
(1987=100)

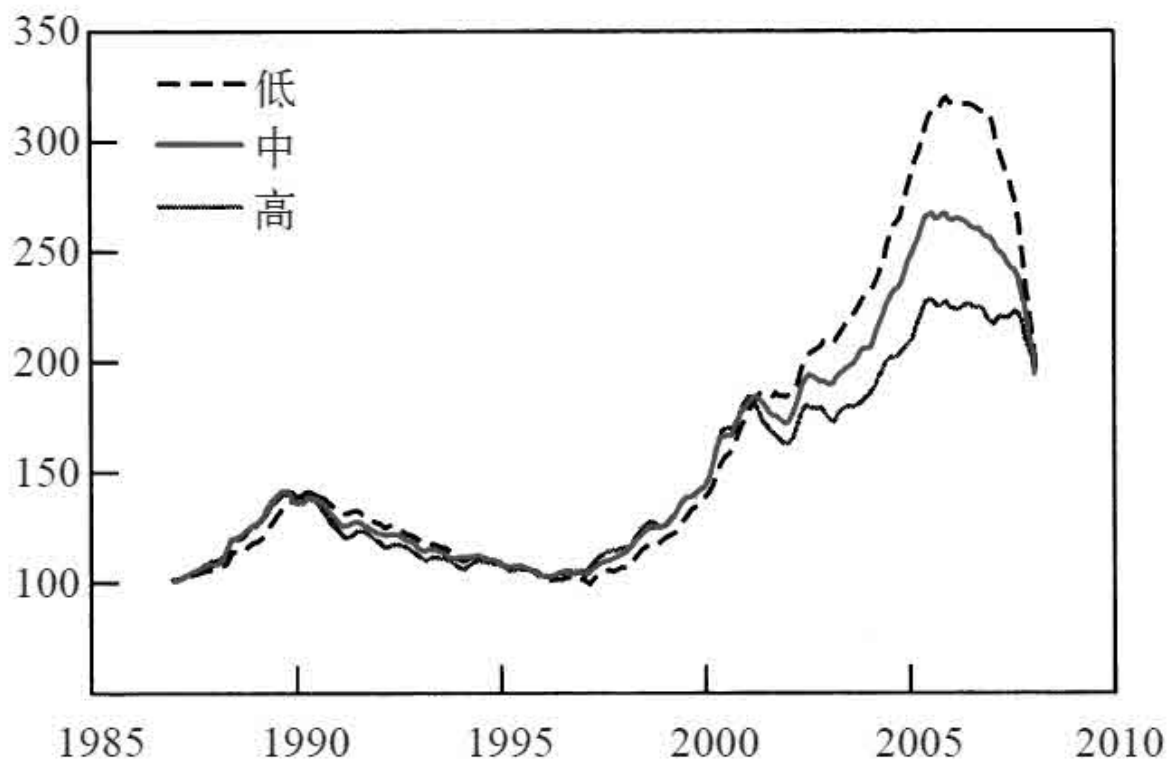


图1-3 旧金山都市区不同价格区间真实住房价格指数  
(以月为单位, 1987年1月至2008年3月)

资料来源: 由本书作者根据[www.homeprice.standard and poors.com](http://www.homeprice.standardandpoors.com)和[www.bls.gov](http://www.bls.gov)网站提供的数据进行计算

然而, 就算不同价格区间市场的价格走势确实有差异, 我们仍然看到所有价格区间市场的价格总体走势基本上是一致的。在低价房、中价房和高价房市场都出现过繁荣, 现在, 繁荣正开始在这些市场中出现分化。

真实价格指数  
(1983, 1985=100)

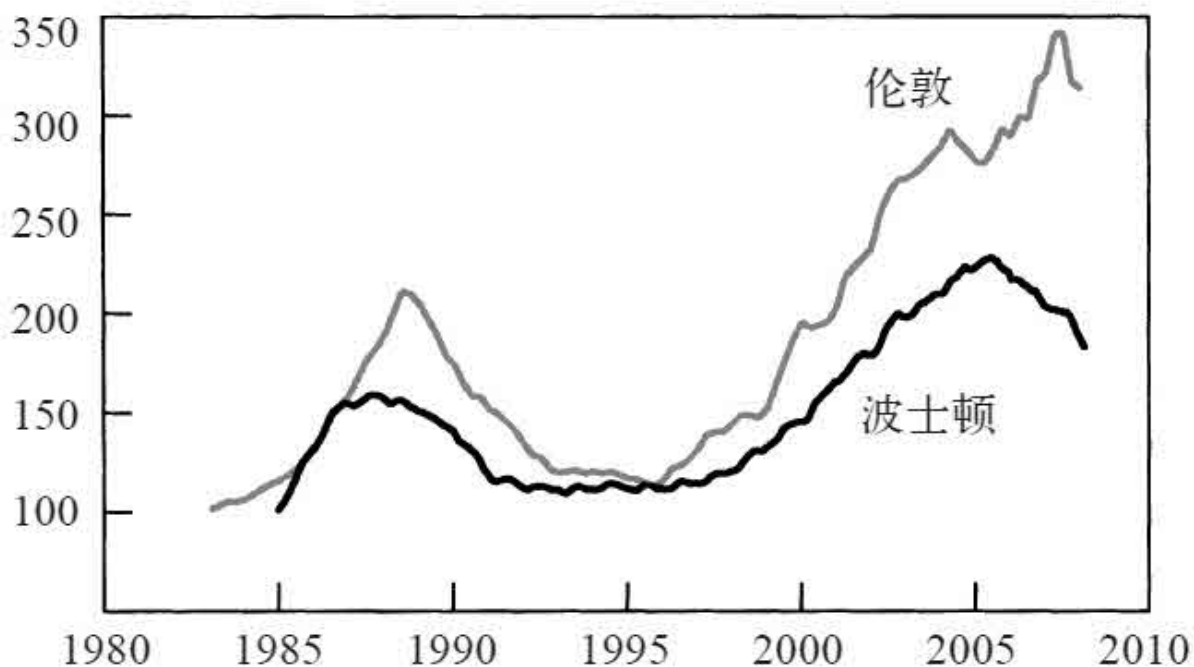


图1-4 伦敦和波士顿真实住房价格

伦敦1983年第一季度至2008年第一季度的季度住房价格的计算是用哈里法克斯住房价格指数除以英国零售价格指数。美国1983年1月至2008年3月的月度价格的计算是用标准普尔/凯斯-席勒住房价格指数除以消费者价格指数

我们可以将我们的跨城市价格走势研究推广到跨国走势的研究上。图1-4显示的是伦敦和波士顿的真实住房价格比较。尽管两座城

市分别坐落于大西洋的两岸，但两座城市总体的相似性相当惊人。差异当然也是存在的，但在总体的模式上确实非常接近。两座城市都在20世纪80年代经历过繁荣，也都在20世纪90年代见证过衰退，同时还在21世纪早期体验过住房价格的快速攀升。根据最新的数据显示，两座城市的住房价格现在又都出现了急剧的下降。

通过对21世纪早期跨城市、跨价格区间、跨国家的普遍深入的研究，我们发现，这个市场中有一种广泛而普遍存在的力量正在发挥着作用。我们现在还无法具体到对这些市场中的某一个市场的泡沫成因做出清楚的解释。我将在下一章说明，能在如此众多的地方引起这些非同一般的价格变化的一个根本性原因与市场的心理传染有关——由于滋生这种传染的故事本身所具有的全球化性质，使我们现在根本无法看到这种传染的影响可能会波及的范围有多大。



## 第二章

# 泡沫的困扰与非理性繁荣

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让我们再回顾一下图1-1，上面有自1890年以来的住房价格。从20世纪90年代以来到底发生了什么事情，居然能使住房价格出现如此强烈的上涨？

数据表明，繁荣期间的建筑成本、人口及长期利率没有出现过任何根本性的变化。那么，促使住房价格上涨的原因到底是什么？

不管原因是什么，我们现在可以肯定的一点是，美国的领导者们对此都视而不见，尤其是对美国存在的问题视而不见。产生这种情况的主要原因是我们对资本主义体制的优越性过分自信，这种自信有时候几乎接近宗教狂热的程度。在这次住房市场繁荣期间，我们的大多数机构总是很轻率地否认那些有可能存在的问题。艾伦·格林斯潘在他2007年出版的《格林斯潘回忆录——动荡年代》一书中重述了他过去经常挂在嘴边的有关住房市场繁荣的一段话：“我想告诉大家，我们所面临的不是泡，只是沫——大量细小的沫子，这种沫子不可能膨胀到对我们整个经济体的健康产生威胁的那种程度。”

事实上，布什总统就算是在住房市场问题正在发生的那段时间，也从来没有在他的公开讲话中提到过住房市场问题。他喜欢提的都是些成功的事例。2005年，在一次每周例行的对全国听众发表的广播讲话中，他自豪地夸耀道：“按揭的利率很低，而且在过去的一年中，美国的住房自有率达到了创纪录的水平。”

当时担任美国总统经济顾问委员会主席的本·伯南克在2005年的时候说：“在过去的两年中，住房价格上涨了接近25%。尽管在某些领

域投机活动有所抬头，但从全国范围这个层面来看，这些价格的增长主要是反映了美国强大的经济基本面，包括就业及收入的强劲增长、极低的按揭利率、稳定的住房构成比例，以及某些地区对住房供应过快增长的限制。”

这些人当然也注意到了泡沫存在的可能性。事实上，格林斯潘很早就已经在思考这个问题。1996年12月3日，就在格林斯潘发表著名的“非理性繁荣”讲话前两天，我和我的同事约翰·Y·坎贝尔以及其他一些人一起被叫到美国联邦储备局董事会上去作证。他很认真地听完了我们的讲话。后来，他在自传里披露，他当时思想上也在对泡沫的说法进行着斗争。但他当时的结论与其他大多数人的想法一样——泡沫还没有大到必须对政策进行调整的程度。

有些问题开始显现了（在20世纪90年代的股票市场泡沫和紧随其后的房地产泡沫里），但当时这些领导者发现，要想对这些问题做深入的了解难度非常大，因为事情正处于发展的过程当中。因此，我们现在有必要挑战一下自己，尝试着去拨开当时的层层迷雾，看看真相到底是什么。

## 观念的传染

由于每一个历史事件都是多种因素综合在一起后共同作用产生出的结果，我深信，正如我在《非理性繁荣》一书里提出的，能解释本次或者其他任何一次引发投机性繁荣最关键的单个因素，就是繁荣观念的社会传染，而繁荣观念通常都产生于对价格快速上涨的常规性观察之中。这种社会传染将不断提高的可信度注入到故事里——这些故事我称之为“新纪元”故事——表面上看起来，这些故事反复地证明了繁荣将持续发展下去的这种观念。观念社会传染的运作机制很难被

真正发现，因为我们无法直接观察到传染，而且它的深层次原因也很容易被忽视。

有些观察家似乎从意识形态上反对思维方式的传染在群体思维中占据一定位置的说法。事实上，人们一般都认为世界是由卓越的伟人们领导的，这些伟大的人物总是拥有无与伦比的大智慧。自20世纪90年代末期的泡沫时代开始，与这种情况类似的知识分子所特有的傲慢就已经开始显现出对世界经济越来越大的影响。

艾伦·格林斯潘在2008年3月《金融时报》的一篇社评中承认——此时距离经济泡沫的结束已经有一段时间——确实曾经出现“虚幻的快感”和“投机的高烧”。但是，他又写道：“根本的问题是我们的那些模型——包括风险模型和经济模型——虽然变得越来越复杂，但仍然太过简单，以至于无法抓住真正驱动全球经济的决定性变量的完整变化。一个能满足需要的模型，应该是从真实世界中的完整细节里提炼出来的模型。”

至此，格林斯潘终于承认了泡沫存在这个明白无误的事实，但是他似乎根本不认同这样的观点，那就是影响人们思想的因素从本质上说，大部分仅仅只是单纯的社会因素。他认同的观点是，对具体行为进行分析的经济学数学模型是我们可以用来认识世界的唯一工具，同时，这些模型仅受制于我们所掌握的资料的数量和性质，以及我们本身所具备的处理复杂情况的能力。对于心理学和社会学领域的研究方法，他似乎并不太愿意接受。

对泡沫所表现出来的冷漠反映了（至少是部分反映了）格林斯潘在意识形态方面与其过去的导师哲学家艾茵·兰德一脉相承。兰德很理想化地描述了个人力量、独立精神、英勇行为和英雄似的“经济人”的超凡能力。但是，现在的社会越来越多地倾向于把个人的自尊建立在通过个人奋斗去获取经济成功的信念上，这样的观点在市场上的接受程度已经远远超过了对艾茵·兰德的观点的认同。

很多经济学家和经济评论员似乎一直不愿意正视这样一个事实：观念传染一贯是人类社会发展过程中的关键因素。正如在不同的地区间存在着观念差异的情况一样（不同的地理区划范围内对政治党派的支持度不一致就是一个很好的例子），观念在不同的时间段也会存在差异。当新的观念在大众思想中取得优势，并因此使旧观念的社会价值开始下降的时候，时代思潮也就会随之改变。投机市场就是一个观察时代思潮起伏的绝佳场所。

了解这类社会传染与了解传染病具有很多相似之处。传染病往往会很突然地出现，它对时间的选择总是让专家们措手不及。但是，人们现在已经开发出了一套数学理论，这套数学理论可以帮助医疗管理部门更好地了解这些很神秘的事件发生的规律。

每种疾病都有传染率（从一个人向另一个人传染的比率）和清除率（个体从疾病中恢复或死于疾病，因此不会再发生传染的比率）。如果传染率超过清除率达到某一个必要的数值，我们就认为疫情爆发了。传染率的变化受制于很多的因素，例如，流行感冒的传染率在冬季就比较高，因为较低的温度会使病毒在传染者打喷嚏后通过飞沫在空气中传播。

在经济环境和社会环境中，情况也是大同小异。由于乐观的看法在市场蔓延，有些因素迟早会持续推高传染率，使传染率超出清除率并达到足够的数值引起疫情爆发。一般情况下会出现这样的情况——支持某种观点的公众舆论被不断放大，紧接着，传染呈螺旋上升，并随即失去控制。表面上看起来，几乎每个人都会认为——如果他们切实注意到某些经济观点很明显地更占优势的话——那些曝光率越来越高的观点仅仅是由于它们本身纯粹的学术价值。人们的这种想法主要是因为产生了观点的社会传染，至少在大学的心理学系以外的地方情况基本如此。

在最近房地产市场投机繁荣的过程中，那些对市场持非常乐观看法的人很受追捧。在我和卡尔·凯斯于2005年共同进行的一项调查中，我们发现当市场进入繁荣期时，旧金山地区的购房者中对接下来10年间价格增长期望值的中间值是每年9%，价格增长期望值的平均值是每年14%。大约有1/3的受访者反馈的是相当高的期望值——有部分人的期望值甚至超过了每年50%。他们的这种期望到底是建立在什么基础之上的呢？我们认为这是由于他们看到了市场上价格的急剧上涨，还听到过别人渲染的类似价格大涨的故事。从这里，我们看到了一种转述性的传染，或者说是看到了一种期望形成的方式。

在投机泡沫产生的过程中，对于市场上所出现的问题主要还是通过市场交易来进行调整，这些调整的过程引起了很多人的关注，而进行具体的调整时所参照的是当时市场上人们能看得到的价格，和那些被新闻媒体放大的价格。我们所说的“放大”在这种现实的背景下应该怎么去理解呢？媒体围绕价格走势编织了很多的故事，当走势总是向上的时候，媒体一窝蜂地用特别的关注和更多的细节去粉饰和推动关于“新纪元”的种种故事。这时候，反馈回路出现了：价格上涨增加了“新纪元”故事的可信度，加快了那些故事的传染速度，并因此推动了价格的进一步上涨。在每一次投机泡沫形成的过程中，价格—故事—价格的回路一而再，再而三地循环往复。

反馈回路同时也会采用价格—经济活动—价格的形式。投机价格上涨促使经济充满了乐观的气氛，因此推动了更多的消费，带来了更快的经济增长，于是又产生了更多的乐观气氛，价格又被进一步推高。对于绝大多数普通人来说，没能够看清楚催生出巨大投机泡沫的经济繁荣的本质是完全可以原谅的，从本质上来看，导致这种繁荣出现的原因在于泡沫本身，而不是经济基本面。

在某些情况下，对投机泡沫产生过程中的传染和反作用的解释可能表现出了相当程度的理性，因此“理性的泡沫”也许因此成为了这

个故事的一部分。有相当数量的经济理论研究人员都对这种泡沫产生方式的可能性进行过探讨。

理性泡沫理论的基本观点是，人们可能已经通过观察其他人的行为解读到了其他人所拥有的信息。他们不能对其他人所拥有的信息直接做出反应，因为他们无法看透其他人的思想。但他们可以将自己的决策建立在其他人行动的基础上（比如当他们推高投机价格的时候），而且他们这样的解读是完全理性的，因为在这种情况下反映出来的是关于经济基本面的有效信息。

问题是，我们总是会把自己置身于这样一种环境中——在这种环境里，人们总是会产生过度乐观（或者过度悲观）的心态，因为他们虽然是理性的，但对其他人所拥有的信息可能会做出错误的判断。借用经济学家苏希尔·比坎达尼、戴维·赫尔什雷菲和艾沃·威尔奇的说法，投机泡沫有可能由“信息串流”引发。有时候，处于同一团体的人会忽略他们自己独立搜集到的信息（这种方式下搜集到的信息可能会从另一方面鼓励他们不人云亦云或者盲从其他的大众信仰），因为他们朴素地认为通常其他人不会犯错误，在这种情况下，信息串流就出现了。当他们忽略了自己独立获得的信息，反而把行动建立在自己感知到的大众信息的基础上时，他们就压制了自己的信息，因而这些信息就不会被贡献到团体里，也就不可能对下一步的集体判断发挥任何作用。久而久之，团体信息的质量就下降了。

心理学、流行病学及经济学理论都认为，如果环境对投机资产的反馈非常狂热，或者这个环境下价格的增长对价格进一步的增长有很大的推动作用，那么随着时间的推移，它将会产生出投机泡沫。这些理论已经说得很清楚，这些泡沫有着非常复杂的——有时是随机而且无法预测的成长机理。

## 泡沫的其他成因

我刚才所说的对泡沫的解释不是人们通常所看到的说法。在说到房地产市场繁荣的因素时，被广泛引用的往往是其他的说法。我在这里想指出，在很大程度上，这些所谓的其他成因，本身有充分的理由被看成是由泡沫产生出来的结果，而不是引发泡沫的外生性因素。

美国联邦储备局在2003年中期时，将它的主要利率——联邦基金利率降低到1%，并一直保持到2004年中期，总体来看，这段期间是房屋价格涨得最快的时期。另外，真实的联邦基金利率（考虑通货膨胀因素后）从2002年10月到2005年4月连续31个月是负值，这是房价增长最快的另一个时间段。自1950年以来，能与这次相比的低利率区间出现在1974年9月到1977年9月，总共37个月的时间。然而，我们不应该把这段时期宽松的货币政策看成是引发泡沫的外生性因素，因为制定货币政策——无论是美联储还是世界上其他国家的中央银行的根本目的是用来应对20世纪90年代股票市场泡沫破灭后出现的经济问题，而房地产的繁荣是房地产本身为应对股票市场的泡沫，以其自身特有的形式所表现出来的反弹。

如果艾伦·格林斯潘以及其他与货币政策有关的人士能早一点意识到我们将经历一场房地产泡沫的破灭的话，他们或许就不会实行这种宽松的货币政策。因此，对货币政策引发泡沫的机制缺乏了解，这至少在部分程度上对这种宽松货币政策起到了推波助澜的作用。美联储的注意力被过多地引向了防止衰退和通货紧缩上，因为他们真切地看到，在他们采取了这么多滋生泡沫的货币政策的情况下，住房价格仍有非常不确定的上涨的后劲——即使是按减慢下来的幅度计。

我们无法用降息来解释在房地产市场上这9年来总体连续上涨的情况。在整个低利率期间，住房市场的繁荣期总共出现过三次，当美联储于1999年开始加息后，住房市场的繁荣开始加速。而且，2001~2003

年间，长期利率——这种对采用固定利率的常规按揭起着决定性作用的利率——对这些降息措施并没有以任何有实质意义的方式做出过回应。

宽松货币政策的影响被2000年以后大量发行的可调利率按揭放大了，而这些按揭的发行主要是针对次级抵押贷款借款人。对于美联储推出的降息措施，这些可调利率按揭贷款反应得远比固定利率按揭贷款更迅速。所以，降低利率的措施或许是在价格上涨最快的时候，也就是大约在2004年前后，产生了促进繁荣的效果，其作用之大可能远远超出了人们的想象。

可调利率按揭非常普遍，因为那些深受泡沫思维影响的人以及期望尽可能深入地介入到房地产投资领域的人，都非常急切地需要得到这种贷款，而应付利息可能马上就会增加的这点小问题根本无法影响他们的热情。他们期盼的是快速增长的住房价格可以让他们获得更高的补偿，而且他们相信，越来越高的住房价格将让他们有可能以较低的利息融到资金。次级抵押贷款借款人希望得到可调利率按揭有以下两方面原因，一是他们在这方面的历练还欠相当的火候，二是受到无论如何也要在住房市场上获得住房这种单纯的想法所吸引。

按更灵活的标准发放贷款的这种需求得到了放款人的积极响应，因为他们本身（以及向他们投资购买这些按揭的投资人）也都非常相信泡沫不会破灭。这就是为什么房地产价格突飞猛进的时间段，无凭据贷款变得司空见惯的时间段，以及可调利率贷款产品和其他存在问题的新型按揭类型产品层出不穷的时间段，基本上都吻合的原因。

另外，对债券化的按揭进行审查的评级机构仍然对事实上风险很高的按揭抵押债券给予AAA评级，因为他们也相信泡沫不可能破灭的神话。就算对繁荣的前景心存疑虑，他们也不会基于住房价格确实会下降这种并不被广泛认同的理论上的说法，而把债券化的按揭产品的评级调低。如果真要调低评级，决策者需要具有非凡的勇气——事实



上，难啃的骨头往往会被很随意地放到一边，因为人们总是对比较容易的事情先做出安排，只有等到迫在眉睫的时候，才发现最好的时机都已经丧失了。

另一个经常作为住房市场泡沫产生的原因而被提及的因素，是管理控制贷款这匹脱缰野马的监管机构的缺位。自从1980年《存款机构放松管制和货币控制法案》有效地终止了美国的高利贷管制法规后，按揭发起人有可能通过设定一个足够高的利率来冲抵合理范围内的拖欠，进而通过次级抵押贷款来获取盈利，因此这个领域现在急需扩大法规监管的覆盖范围，但是一直到现在都没有能见到重新修订的法规。而在20世纪90年代到21世纪初期的这个时间段内，一个非银行按揭发起人的“影子银行体系”已经建立起来，并且发展得很快，但直到现在，都没有谁来为它制定类似银行监管法规那样的规章制度。

监管机构在工作中没有紧迫感最终必将导致他们判断力的丧失，使他们根本无法相信居然会出现这么一场范围如此之广的住房市场危机。

当我于2005年住房市场泡沫接近顶峰的时候在美国货币监理署和联邦存款保险公司这两家美国最主要的银行监管机构演讲时，我发现那里的工作人员对怎样看待信贷市场的繁荣有着不同的意见。我呼吁他们立即采取行动，制止过度的按揭放款，因为它正在培育一个不可持续的泡沫。而我所得到的答复是，他们知道或许应该这样做，而且有一些人确实觉得必须这样做，但这需要时间以及内部的充分协商，以期大家能取得共识。我觉得他们中的大多数人认为，我提出的泡沫有可能破灭的观点只是一种很极端的情况，而对这种极端的情况是否真的出现，他们持保留态度。

2006年10月，在参加一个由耶鲁投资俱乐部主办的专题研讨会时，我与房地美的首席经济学家弗朗克·诺沙夫特对话。房地美是一家主要的住房按揭债券化机构。当时，我曾经问他房地美是否进行过

房价下跌对自己可能产生多大影响的压力测试，他回答说做了，他们甚至已经考虑到了全国房价下跌13.4%时可能发生的情况。我又问道：“下降幅度超过这个规模时又该怎么办呢？”他回答说，这样的跌幅从来都没有出现过，至少是大萧条以来从来就没有出现过。

20世纪80年代在住房价格高涨后出现的住房市场崩溃期间，美国政府通过了《联邦政府住房企业财务安全与稳固法案》，并相应成立了联邦住房企业监管办公室，来监管那些由政府主办的企业（比如房地美和房利美）可能面临的经营风险。按照该法案规定，联邦住房企业监管办公室的一个主要目标，就是防止出现金融流动性不足的可能性。联邦住房企业监管办公室今天依然与我们同在，对那些可能存在的系统性风险进行着监管。《联邦政府住房企业财务安全与稳固法案》要求联邦住房企业监管办公室模拟可能出现相反利率及信贷危机的情境，进行必要的压力测试，联邦住房企业监管办公室也按这个要求做了相应的工作。

然而，在联邦住房企业监管办公室截至2007年的历年的年度报告中，它从来没有表述过其对住房市场繁荣有怎样的认识，更不用说表述其对这种风险的心理学本源上的认识。而现在，住房市场的过度繁荣已经被确认是造成这场风险的主要原因。从这点上看，这些监管机构对危险好像都视而不见，放任房地美和房利美继续支持房地产市场的过度繁荣。

从根本上说，一个能让所有这些因素一起来滋生泡沫的重要原因，就是负责市场监管的那些人也同普通百姓一样被对未来房价增长的高预期所蛊惑。在很多情况下，他们本不应该如此狂热地轻信住房市场的繁荣，但他们最终还是接受了“结果不会太糟糕”的这种说法，而且这种说法早已经得到了大家的一致公认。

## 惊慌失措与流动性不足

相关机构根本就没有预想到会出现这么多高成本的违约，这一点可以从次级抵押贷款市场崩塌后整个市场一片混乱，很多人都表现得惊慌失措的情形中找到证据。例如，2007年年底，多家银行请求能否不受《财务会计准则114》要求的限制。这份由财务会计准则委员会制定的规则要求银行根据未来现金流的净现值报告呆账，也就是所谓的不良贷款。这是努力规范此类债务的一种尝试，目的是使这类债务在规定的报表中很难再被掩盖。这些银行对自己提出这个要求的解释，是它们还没有具备处理如此规模的不良贷款的结构调整能力。而之所以没有具备这种能力，是因为它们根本就没有预见到危机可能会来临。

这样措手不及的情形，在我们已经亲历的横贯全球的金融流动性的不足中表现得淋漓尽致。

导致这种局面出现的信贷标准的降低，成为了投机泡沫破灭的先兆。在过分乐观的氛围下，人们更愿意关注强劲的经济基本面，而不会考虑怎样在可能会出现泡沫破灭所带来的巨大风险中保护自己，而且，他们认为这种最终出现大规模泡沫破灭的可能性离他们似乎还相当遥远。

## 思维方式的变化

“投资住房是一个非常好的想法”这种20世纪90年代后流行的新思维滋养了泡沫。也许有人会觉得奇怪：为什么这种情况偏偏会发生在这个时候？为什么这种想法之前没有在全国范围或者是国际范围内引起广泛的关注？是什么使得泡沫思维在2000年以后特别具有感染力？

其实，并不是人们在2000年以前对投机没有兴趣，根本就不是这么回事。事实上，土地投机是一种非常广泛的众所周知的现象，可以追溯到非常久远的过去。

历史学家阿隆·萨库尔斯基在他1932年出版的《巨大的美国土地泡沫：从殖民地时期到现在的土地掠夺、投机及繁荣》一书中认为，投机的氛围可以追溯到美国历史开始的时点上。书的开篇就说：“美国，从其诞生伊始，本身就是一场投机。”萨库尔斯基在书中说，18世纪时，整个社会就达成了一个共识，美国最终会通过大规模的移民来尽可能地提高人口密度。土地投机者从17世纪后期开始，陆续以相当低廉的价格购买了大量的土地，希望在很多年后卖给移民过来的人，使他们的资产成倍或者成三倍以上增长。投机狂潮开始涌现，土地的价格有时候会出现非常明显的人为炒作，因此有时候也会出现价格暴跌，最终导致投机者的破产。事实上，土地的“高烧”也传染了某些上层人士。按照萨库尔斯基的说法，早期美国人中最负盛名的乔治·华盛顿也是一名土地投机者。

赫梅尔·霍伊特在他1933年出版的《芝加哥土地价值百年史：芝加哥的成长与土地价格上涨的关系，1830~1933》一书中，向我们描绘了芝加哥土地价值投机的类似场景。但是，和萨库尔斯基一样，霍伊特谈论的是关于土地的投机（选取的是芝加哥都市区的地块和街区），而不是关于个人住房拥有者期望通过购买住房来赚取利润。

这两本有关地产投机的经典文献都出现在20世纪30年代巨大的房地产危机的顶峰时期，这当然并不是因为巧合，而是因为当时公众对地产投机充满了浓厚的兴趣。我们已经进入了一个对地产投机的高度关注期，有关住房市场投机的新书也是层出不穷。对加速了泡沫思维社会传染的房地产市场的这种关注，看起来似乎与20世纪90年代股票市场繁荣的后续影响有着内在的联系。

这种繁荣与人们期望改变自己在经济生活中的地位有关。这种观点认为，我们应该期望我们的投资获得巨额回报。这种变化远远超越了具体的投资战略范畴，已经涉及到支撑自我的自尊机制的改变。那种长期以来一直作为国家精神基础的清教徒工作伦理观，被进行了一次彻底的改头换面。从一个大的层面来看，我们不再敬重那些只会埋头苦干的人。因为要想获得别人由衷的尊重，你必须还得是一个精明的投资者。

20世纪90年代以来，那些最具影响力的人也被越来越多地看成是精明的投资者。我们开始相信印度、巴西以及其他发展中国家经济体正在产生一个巨大的新的富豪阶层，这些人将会推高房地产以及其他供给有限的资产。确实，这些国家在发展，这一点我们并没有看错，我们的错误是夸大了这些新兴市场在当今房地产市场上所具有的影响力。

与早期泡沫相比，现在的泡沫所具有的比较独特的特点是，“新纪元”故事成为了推高所有地块价格的动力之一。历史上其他时期的地产泡沫相对都比较本地化，人们能见到的对泡沫的解释不会被归纳总结并应用到对世界其他地区地产市场的分析上。

佛罗里达在1925年达到顶峰的那次土地泡沫，是20世纪上半叶出现过的最大的地产泡沫，这个泡沫明显地扩展到了佛罗里达以外的地方，但它毕竟对全美范围内的城市住房价格只产生了相对较小的影响。从1921年到泡沫高峰的1925年间，美国的真实住房价格仅上涨了19%。之后，这个故事发展得非常完美：由于汽车的普及，佛罗里达逐渐被人们所认识，因而脱掉了地处偏僻地区的帽子，所有土地也被一扫而光。但同样的故事从未能幸运地波及到辛辛那提和多伦多，去证明那里房地产市场繁荣的合理性。

本地化住房市场的繁荣肯定在很久以前就出现过，甚至在牛仔和印第安人游荡在美国西部的那些充满传奇色彩的日子里，就已经出现

过住房市场的繁荣。那么，当美国西部还属于边境地区而且土地资源又非常丰富的时候，又怎么可能会出现住房市场的繁荣呢？让人意想不到的是，这种情况确实曾经发生了——在南加利福尼亚，当时人们从全美国四面八方聚集到那儿参与住房的投机。而且说来也巧，当时同样也有一个关于加利福尼亚的故事来证明泡沫的合理性，但这也是一个没能发生在其他州的故事。

加利福尼亚的地产泡沫出现于19世纪80年代，1887年达到顶峰，1888年泡沫破灭。泡沫生长期间，整个美国的报纸长篇累牍都是它的报道，无数文章不断赞美加利福尼亚宜人的气候、美丽的景色以及加利福尼亚人的生活方式。

另一方面，当时也有大量关于加利福尼亚这种繁荣存在不合理的质疑。一篇1887年12月26日发表在《洛杉矶时报》上题为“南方的繁荣”的文章，以一名记者的视角记叙：

在洛杉矶——这个繁荣正在眷顾的真正的家园——当你到达旅馆后，会被告知他们能给你提供餐饮，但是没有床位。你苦闷，你挠头，你祈祷其他那些傻瓜不要跟你在同一天到达城里。你只好动身到另一家旅馆去碰运气，而且最终找到了一张设在大厅里的加床，这已经让你非常满足。

早晨起来你开始观光，在你到达的第一个街区就会看到在建的大楼，并且随着你的旅程的延续，你看到的会更多。那首老歌总是在你的脑海里萦绕：“我的眼睛看到了主的荣耀。”你十分自然地想用“我的眼睛看到了繁荣的奇妙”来替代。你可以在洛杉矶周游数天，但不可能把它全部看遍。所有想要描述它的全貌的企图都是徒劳的。要想数清楚现在在建的新大楼的数量，就像想要数清楚天堂上的星星一样，是不可能的。

“这是怎么回事啊？”你问。我们回答：“繁荣。”“那么，什么是繁荣呢？”你再问。我们将同样的询问抛向了生活中各个领域的几十个人，但没有一个人能给我们一个答案。有人告诉我们这是这个国家前所未有的金融及经济现象。我们问这种现象是否可以持续，得到的回答是，正如它不请自来一样，也有可能不辞而别。

文章中的这段对话与我们在21世纪所听到的是如此相似，我们对价格飞涨引起的建筑潮也同样惊奇，对引发这种情况的原因也同样困惑。

从这些发表在19世纪80年代繁荣时期的美国各地报纸上的文章来看，当时的繁荣感觉上是全国性的，因为全国各地几乎每个人都在谈论这件事，而且来自其他州的许多人都涌入南加利福尼亚并参与其中。但没有任何证据表明出现过全国性的事件，人们也不会认为这种繁荣会传递到他们的城市。与这次繁荣有关的文章总是强调这是加利福尼亚的繁荣，对该地区罕见美景和宜人气候的追捧也推动了这次繁荣。

疑惑仍然没有能够完全消除。加利福尼亚是一个广大的地区，宜人的气候遍布该地区的大部分地方，而且在19世纪80年代，还存在着相当数量的可以用来建造住房的农场和尚未开发的土地资源。但令很多人疑惑不解的是，只有加利福尼亚的城市成为了独一无二令人神往的地方，因此也让那里的房子拥有了独特的价值，而且这种价值还一直保持到了现在。

他们将怎样证明在19世纪80年代，花如此高的价钱在那里买下一栋房子的合理性？因为就在距离他们房子不远的地方，他们花同样的钱，可以买到一处很大的农场。从某些方面看，他们的选择当然是正确的：南加利福尼亚城市区今天的地位仍然非常重要——这些地区扮演着社交、文化和经济活动中心区的角色。如果说当时他们有什么没想到的话，那只是他们没想到19世纪80年代以后的住房价格竟然会

如此之高，上升会如此之快。人们把价格突然上升的原因归于在美国范围内非常意外地发现了像地处加利福尼亚的这些城市的重要地位，而没有将此归结到繁荣的心理影响方面。正如我们所看到的，确实有一些人好像也知道繁荣的心理学反应，有些人甚至还以此为题为报纸写了文章。但更多人并不清楚这一点，而且他们本身也没有足够的智慧来对人性的本质做出判断，甚至没能意识到他们其实已经被卷入了一个非常特别的市场心理旋涡之中。这里所说的“他们”就是指那些购买了房产，推动了繁荣的人。

每一场繁荣都需要有一个故事——一个能让人深信不疑的故事，一个能说明价格的上涨是合理的而不是暂时失常的故事。当然，推高市场的整个过程时间那么长，也不是所有人都对这样的故事一直深信不疑。

这种对泡沫真实属性理解上出现的缺失，根本不可能让人们对所接收到的信息做出理性的反应，因为这些芸芸众生在当时的情形下正自我陶醉在观念传染的心情故事之中。这个用来证明泡沫合理性，而且对某些人来说听起来似懂非懂的故事被慢慢地扩散，通过观念传染向四处传播。

## 泡沫期间的公众思想

20世纪90年代以来到底发生了什么变化，使我们好像突然间在众多不同地方的住房市场上都热切地盼望着投机者们的到来？要想回答这个问题，我们需要回过头去研究那些产生出这些泡沫的势力。为什么17世纪30年代的荷兰会出现郁金香狂潮——脱离开我们的群体意识后，为什么对郁金香的投机热情还会一直持续不断？



我在《非理性繁荣》一书里对这个问题进行过一定程度的分析，特别是在第二版里，因此我在这里只简单地给出一些基本的观点。对于鼓励住房市场泡沫思维的那一大堆让人耳熟能详的观点和看法，我们确实有一些认识，然而，想要把它们完全理清楚又存在着相当的难度。其中的一个原因是，我们在这次严重的住房泡沫过程中正在经历的“新纪元”故事，在某种程度上把土地的价值和住房的价值捆绑到了一起。这个捆绑过程从某些方面看，就是泡沫本身所导致的后果。过去，在比较有代表性的城市里，构成住房基础的土地基本上只占整座房子价格的15%左右。因此，人们把他们的房子看做是可折旧的工业产品，就像汽车、游艇一样，需要大量的维护费用，直到最终消亡为止。但是现在，土地价值（我们的定义是住房的价格减去建筑物的估算成本）基本占住房价值的50%以上，因此我们开始把住房当成土地看待。由于住房是我们每天都要看见的东西，因此，在一个新泡沫形成的过程中，伴随着把住房描绘成每个人都可以投入的最好的投资项目这个说法，它的传染率很高就是再自然不过的事了。

我们现在还在犯的一个错误，就是把已经人为抬高了的土地价值作为下一个新均衡的参照。在未来，建房很自然地会有这么一个过程：在寻找一种节省土地的建房方法的同时，也会寻找比较便宜的土地来建房。这个目标可以通过提高建筑密度，比如建造更高的公寓楼或者采取在都市中心区见缝插针的办法来解决，当然还可以通过建设新的都市区来解决，但这些想法比一般住房买家的想法超前了三个阶段。

实际上，我们还拥有大量便宜的土地可供利用。但是现在正在影响着我们的所谓的新思维是，城市中的土地从某种程度上看，与其他地方的土地存在着很大的差异，就算是从长远看，我们也不可能用那些便宜的土地来替换这些昂贵的都市土地，这就足以使我们对未来土地价格的预期非常高。这个观点在我们的泡沫思维中占据了相当重要的位置，因此在下一章中将用相当的篇幅来对此展开讨论。

## 住房价格的可预测性

要理清最近住房价格的泡沫，就很有必要反思一下我们预测的高得让人难以置信的住房价格水平。住房市场与股票市场是完全不同的两个市场，因为股票价格更像是一种“随机游走”方式。在股票市场上，价格可能头一天上涨，第二天下跌，走势图上看不出很明显的相关性。但在住房市场，似乎年复一年都是同样的走向。从1997年到2006年，美国的住房价格每年都在上涨。从1991年到2005年的14年中，住房价格的上涨率在大多数年份都以一个基本相似的增长率增长，也就是说，住房价格以一定的增长率连续上涨了14年。

泡沫思维认为这种价格上涨趋势会一直持续下去。在股票市场，这种思维是非常不理性的，因为股票市场的价格趋势根本不可能总保持一致。但很奇怪的是，对住房市场来说，大家似乎都认为价格一直上涨很合理，至少当市场处于繁荣的高点时是这样。回顾一下上一章中任何一张图，人们会吃惊地发现在最近几十年间，要想预测住房市场的走向简直是太容易了。

在我与卡尔·凯斯1989年为《美国经济评论》写的一篇文章中，论证了住房价格的这种可预测性。那篇文章中的真正创新是我们提出了重复出售住房价格指数，它第一次揭示了住房价格真实的运行规律。我以前的学生艾伦·魏斯想要把这个指数实际应用起来，因此我们于1991年创建了凯斯·席勒·魏斯公司，由魏斯领导来推出这种指数。2002年，我们把公司卖给了费哲金融服务公司（Fiserv Inc.）。这种指数在经过标准普尔公司的深度开发后，现在由标准普尔公司对外发布。

大家在那个时候通常所说的住房价格指数，只是由全国房地产经纪人协会发布的简单的住房价格中间价，而且这个价格指数失真得非常厉害，因为每个月的销售情况汇总后马上就会出现非常快的变化。

大型或高质量的房子会集中在某一个月卖出，小型或品质较低的房子销售又会集中在另一个月。因此，当把它们连续起来后，看上去就会非常杂乱，跟股票市场价格的表现差不多。当我和凯斯让我们的指数只基于每幢住房价格的变化，并剔除了那些噪声后，我们解决了这个混乱的问题，并且发现住房价格在一定时间段内的走势异乎寻常的平稳。

为什么住房价格的预测会如此简单呢？难道人们通常认为的投机价格很难预测的说法错了吗？难道这个价格不应该是（至少是接近）“随机游走”方式？然而，我们的数据分析证实，住房价格确实具有非常高的可预测性。

可是情况怎么会是这样的呢？难道在住房市场繁荣的时候，一个人可以随意买入房产，并在一年或以后出手就能获取高额回报？地产市场赚钱怎么就这么容易呢？

事实上，答案是在过去的繁荣期间，做房地产赚钱确实很容易——只要你了解住房价格形成机制中的几个要素。很显然，由于20世纪90年代公布的住房价格数据相对完善，一些经验丰富的投资人决定在这个正处于繁荣期的市场上搏一把，那些付诸行动而且适时全身而退的人总的来看成功了。要做到适时全身而退实际上也不是什么太难的事。在价格真正开始下跌前，我们已经连续两年给出了减速的预警。

这个明摆着的赢利机会是引发泡沫的重要原因，它促使泡沫得以持续不断地连续产生。事实上，人们一直认为他们可以通过购买住房赚取巨额的财富，因为他们已经年复一年地看到别人这样做成功了。

那么为什么又会有如此多的人被泡沫困住？原因是他们忘了一个简单的道理，那就是泡沫在短期内可以托着你前行，但你必须市场

方向出现逆转前全身而退。然而，他们越来越相信繁荣永远不会有终点，正如我们在下一章将要看到的情况一样。

## 第三章

# 房地产业的神话与现实

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现在出现的这些泡沫极大地强化了公众对流传已久的一种神话的信心——这种神话认为，由于人口的不断增长以及经济的持续发展，再加上可供利用的土地资源不断减少，地产价格的总体趋势必定随着时间的推移而强劲上涨。

20世纪90年代后期以来，人们对我们现有的这些城市的信心正在不断增强——尤其是对我们这些城市所具有的独特性以及它们所处的特殊地位。正如我们在第二章中所看到的，这种信心的强度似乎与下面两种情况相关：一种是认为持续成长中的世界经济正在快速变得更富有的看法，另外一种是对简单的人口增长导致高价格这样一种现象的观察。

确实，发达国家的国内生产总值已经以每年大约3%的增长率持续增长了好几十年，而且目前仍然处于一种良好的长期持续发展的势头中。发展中国家这段时间国内生产总值的增长率甚至还要更高。这可能从另一方面暗示了真实的住房价格也应该以类似的速度上涨。然而，实际的情况并不是这样，而且将来的情况基本上可以肯定也不会是这样。

国民收入核算账户中花在住房上的个人收入部分在过去几十年间相当稳定——收入的增加部分不是用在住房价格的上涨上，而是用在住房消费的增加金额上。

如果大家都能理智地来看待这个问题，我们就可以非常清楚地看到，现有城市区域的价值增加根本就没有表现出任何让投资者变得

富有的趋势。如果住房的真实价格在刚过去的那个世纪中能够保持每年增长3%，那么通常情况下，我们不大可能买得起现在这种比过去更好而且更大的房子。但是我们都知道，现在的房子与以前的房子比起来，事实上是越来越大，而且也越来越好了。

根据美国统计局公布的数据，美国居民每户住房平均占地面积从1973年的1 525平方英尺增加到了2006年的2 248平方英尺，增长幅度几乎达到50%。不过，单纯的占地面积只是衡量住房质量的一个方面。

人们可以拿新房子的平均价格与美国统计局20世纪60年代起开始测算的恒定质量住房价格指数进行比较。新房子的平均名义价格指数在1963年到1998年的35年间上升了8.605（我之所以选择最近这次泡沫之前的时间段，是为了避免数据失真），但恒定质量新建住房价格指数（同样由美国统计局测算）仅上升了5.928。这两个指数的比值是1.452，这种情况可以被理解为1998年的新建住房总体上优于1963年的住房。通过这种方式，我们可以推导出新建住房质量增长率为每年1.1%，这在同期2.4%的真实人均收入增长中占据了一个相当大的比重。此外，美国平均家庭人口从1960年人口普查时的3.29人下降到1990年人口普查时的2.63人，下降率为每年0.7%。这些数据表明，我们不仅有能力用增加的收入购买更大的房子，同时还能够拥有更多的房子。除此之外，我们还能用剩下的余钱来改善其他方面的生活质量，比如更多的旅游、更多的娱乐支出、追求更完善的健康保健。所有这些都清楚地表明，与我们的收入同步增长的住房价格并没有让我们苦不堪言。

## 新住宅的建造

经济学家威廉·鲍莫尔提出了一个被后人称为“鲍莫尔模型”的推论：与生产工艺和技术进步关系密切的产品或服务的成本，比那些

从其属性看与技术进步关系不太密切的产品或服务的成本，更具有随着时间的推移而下降的趋势。因此，举例来说，教育的成本（指主要依赖传统课堂教学，而不是那些得益于技术进步的方面）比工业产品（其生产工艺可以通过使用新的工具、新的方法和新的材料进行改进）的成本更具有随时间推移而上涨的趋势。因此，根据鲍莫尔模型，住房成本（至少是住房价格中与结构有关的部分）应该随着时间的推移而下降。

然而，实际建筑成本在整个20世纪中并没有表现出这种下降趋势，尽管从1900年到20世纪30年代大萧条的20年间确实有过这种现象。但是很显然，鲍莫尔模型的实质还是被遵从了：住房价格在20世纪90年代的泡沫出现前，并没有表现出很强的持续上升趋势。

当然，土地不可能被生产出来，除了迪拜的几处人工岛和其他几处人工的地方，土地的数量几乎是永远固定的。但土地只是住房生产过程中众多投入中的一项，如果城市区较高的土地价格推高了住房价格，就会促使开发商去为这种稀缺资源寻找更多的替代资源。

首先，他们可以在城市地区提高建筑密度。由于有些政治势力反对提高建筑密度（特别是现有住房的所有者，他们把这种可能增加的建筑看做是对他们已有房屋价值的威胁），因此从长期来看，人们很难相信持提高建筑密度这种想法的那些势力能够最终胜出，尽管有为大众提供住所这种道德层面上的说法的支持，以及开发商为找寻展示他们才华的机遇而坚持不懈的努力。

其次，我们还有大量的土地可供开发。根据美国统计局2000年的调查结果，城市地区土地面积只占美国国土总面积的2.6%。大城市房屋的高价值来自于与建筑环境有关的地理位置，而不是只与土地的价值相关，而这种建筑环境完全可以通过规划和协调的努力来进行复制。

## 城市精神与乡土观念

以奇妙的“魔幻城”作为地产投资依据的这种信念背后，总隐藏着一种热爱家乡的感情色彩。很多人似乎都认为自己的城市拥有一种很虚幻的伟大，对这种思想的痴迷甚至到了不健康的程度。

我在土耳其伊兹密尔附近欧兹德尔美丽的海滨度假胜地参加了一个国际投资专家团的室外午餐会，并很荣幸地做了一个发言。当时周边的环境非常质朴，从爱琴海到希腊的萨摩斯岛，景色相当壮观，而萨摩斯岛曾经是数学家毕达哥拉斯和天文学家阿里斯塔克斯生活过的地方。在这样的环境下，我告诉他们，人们常常对自己的故乡表现出一种匪夷所思的忠诚。我向他们举了加利福尼亚人对他们故土的强烈挚爱的例子。我对他们解释说，这些加利福尼亚人对当地宜人的气候和美丽的景色感到非常自豪，他们常说：“每个人都会希望在那里生活”。我发现现实中有相当数量的人都有同样的这种倾向，因为他们在我发出的请他们评价自己故乡房地产市场环境的问卷调查表上，都不约而同地写到了类似的内容。

我对这个成员来自各地的代表团提出了一个问题：“你真愿意到加利福尼亚去居住吗？”并请愿意的举手示意，结果没有一个人举手。或许很多生活在土耳其的人对加利福尼亚的美丽动人之处所知甚少，就像加利福尼亚人对土耳其的美丽也并不十分了解一样。这种认为我们自己很独特的理念（心理学家称之为聚光灯效应）使他们对自己城市的特别之处的错误认识被进一步地放大了。

对自己所属的城市或者是州的忠诚听起来是一件好事，或许这也正是那些推广居者有其屋项目计划的人想达到的目的。但它同时也制造了房地产投机泡沫，而加利福尼亚则成了美国房地产泡沫最严重的州。



这个问题的解决办法就是打开进入高门槛约束的不动产交易市场的方便之门。我们应该让我们的市场民主化，对此我将在第五章做详细论述。土耳其人——事实上是全世界所有地方的人，在下一次泡沫产生期间，将会有强烈的愿望在期货市场上卖空加利福尼亚的不动产，前提是届时市场上有足够的流动性可以让他们进行这样的操作。这样的市场操作会帮助防止类似促成此次次贷危机的盲目定价的情况发生。当然，公开的市场也不可能堵住所有的泡沫，但基本上会形成一种自我约束和自我平衡的机制，预防出现住房价格非常规蓄势等许多我们最近目睹的这类情形。

## 建筑成本：神话与现实

在泡沫期间，有很多有关“建筑成本爆炸式上涨”的说法，这种说法与土地资源将要枯竭的说法如出一辙。这种说法给了人们这样一种印象：似乎建筑材料的供给将要枯竭，因此，建筑材料的稀缺性将会使未来的住房更加昂贵。

但这种说法在之前图1-1所给出的实际建筑成本数据中并没有得到证实，尽管有一些其他成本在泡沫期间确实表现出暴涨的情况，这可能反映了建筑方面确实存在着一些瓶颈。比如说，在住房市场繁荣期间，存在缺乏熟练建筑工人的这种趋势，这种紧张状况一直要到我们培训出更多数量的建筑工人才能得到根本缓解。但是请不要忘记，用以判断住房价格的真实时间段应该是长期的。那么，我们现在的建筑材料真的正在被耗尽吗？

现在建筑居住用房的主要材料是木材、石膏、水泥、玻璃和钢材，这些材料的保有量还可以使用多久，才会在这个世界上消耗殆尽呢？

木材是可再生资源，不可能枯竭。我们主要的商业林场都是按可持续的基本原则进行经营管理的。在木材生产地区，人口的压力一直都不算大。技术进步使木材的使用效率更高，采伐的方式是最优化的砍伐而不是乱砍滥伐，在采伐过程中使用的是极大地减少浪费的数控电锯，另外在建筑施工中还采用不断改进的纤维板，以及其他一系列的创新。事实上，全球变暖如果有点益处的话，就是增加了木材的供应，而基因工程的进步更可以大大提高树木的生长速度。

石膏矿作为石膏板和墙板的主要原料，是一种非常普通的矿产。新墨西哥州的白沙国家公园以其一望无际的大量白色石膏沙丘而闻名，在275平方英里范围内，几乎全部都是石膏矿藏。尽管这个特殊的矿点已经被保护了起来，但仅该处就足以为全世界的建筑业提供数百年的石膏供给。

水泥是用以制作混凝土的主要材料，而生产水泥的主要原料是石灰岩，石灰岩的储量占整个地球所有沉积岩构造的大约10%。

玻璃主要是（有时甚至全部是）用石英来制造的，而石英是地壳里储量位居第二的最普通的矿产。

铁是生产钢材的主要原料，它在地表最丰富元素中位居第四。虽然我们确实必须面对这样一个不争的事实：赤铁矿——现在最常用的铁矿石——在很多国家被大量开采，特别是在两次世界大战期间，因此对铁矿石即将枯竭的恐惧在这些地方很有市场。但是同样不争的事实是，我们还有很多其他资源及矿石类型可以利用。另外，铁还可以通过对汽车、桥梁、大型建筑物的结构部件以及轮船和其他废旧物料的回收利用进行再生。

这里提到的这些建筑材料，即使其中的任何一项出现短缺，也可以用其他材料来替代。我们完全可以做到不用太多的木材、石膏、混凝土和钢铁，甚至可以用玻璃来盖房。在住房的发展历史上，我们曾

经使用过很多的材料来盖房，这些材料包括泥土、草皮、干草、竹子、纸张、冰块——甚至是长毛猛犸象的牙、骨头和皮革。展望未来，我们一定会找到现在最常用的物料中可能枯竭的材料的替代物。事实上，我们现在能看到一些以前根本想象不到的替代材料，因为技术持续进步的步伐迈得比过去更大了。

当然，住房建筑成本中最大的单项成本是劳动力，对此我们需要再次感谢技术进步所带来的成果——随着制造业劳动生产率大概每年2%的提高，这些成本在我们收入中的比重也会出现大幅度的下降。

另外还有一些担心是能源和水的短缺可能会制约新住宅的建设。但如果情况确实如此，那么我们应该去投资能源和淡水，而不是住宅，因为这些领域的定价是独立的。

随着世界的不断发展，我们将不得不面临某些东西的短缺，但很难想象住房在短缺名单中的排名能够靠前。人们对住房的需求是寻找一个栖身之所，一个能组建家庭和养育后代的靠近工作场所和学校的地方，一个可以吃饭和睡觉的私密空间。这种需求是针对住房所提供的这些服务的，而不是针对任何单一的资源，比如木材或者是混凝土。经济学上一个最基本的常识就是当一种资源变得稀缺时，人们总能找到它的替代物。有如此众多的不同种类可供利用的资源可以作为建筑材料，很难让人相信住房的供给会比其他任何东西更紧缺。

很多人不明白这个基本的经济学常识，正是这种理解的缺乏帮助生产了大量的投机泡沫，也就是说，泡沫的产生正是基于这种认为我们用在住房建设过程中的资源会出现短缺的错误印象。

## 大规模的城市规划

住房的稀缺价值在于大家感觉到城市中心区的稀缺，但我们完全可以重新建设很多新的城市中心、城镇和城市。

开始于20世纪80年代的新城市化运动正在试图改变城市扩张的模式，而这种城市扩张模式正是过去半个世纪以来美国和其他国家所致力推行的。在这种模式下，众多城市郊区围绕着现有的主城市不断地建设起来，而这些郊区缺乏有效的市政管理，摊子铺得很大，因而消耗了大量的土地，住户们不得不在变得更糟糕的交通条件下依赖汽车往来于市中心与居住地。

新城市化主张一开始的构思就是建造小镇及毗邻的中心区。最近，一些城市理论学者提出建设崭新的大城市中心区。

例如，克里斯托弗·林纳博格就认为人们对大型的适宜步行的城市中心区——比如小曼哈顿，存在着巨大的需求。他认为，人们真正需求的是经过精心设计的新的城市综合中心区，而不只是现有的这些城市。有很多人喜欢居住在喧闹的城市，在这里，人类活动的活力极大地刺激了人们的生活。我们人类属于群居的种群，我们中的多数人都更倾向于在精心策划的假期里尝试少有的几次野外经历。

人们很喜欢生活在可以更多地以步行为交通方式的城市，在这里，各种各样的地方都可以在徒步穿越有趣人群的宜人环境后抵达。写到这，世界上一些大城市的名字禁不住涌上心头：伦敦、纽约、巴黎、东京……所以，最关键的问题是要建造新的城市，而且规模要大。这确实是一个完全可以满足的需求——满足这个需求所需要的只是大家坚持不懈和齐心协力的努力。

事实上，对于这样的城市建设，历史上有相当多的先例可循，例如在相对偏远的地区从零开始建设新首都城市。始于18世纪90年代华盛顿的建设就是这种方式，到现在，它已经是一个大都会，那里的物业价值也已经相当高了。巴西利亚、堪培拉和伊斯兰堡的建设走的也

都是同样的路。这些城市市内的高物业价值证明了这样的理论：我们完全可以在现有的拥挤的城市之外建设重要的繁荣的新都市中心区。

我们也有一些私人建设领域的例子，而且这样的例子还在不断增多。例如雷斯顿市镇中心区，它位于华盛顿附近，由罗伯特·E·西蒙建设。他的这项创举始于20世纪60年代。市政中心建成于1990年，在曾经一片荒芜的土地上耸立起了高楼丛林。它完全具备了大多数传统城市的特点，而那些传统城市的房地产价格已经很高了。房地产的高价格将不断刺激供给，大量像雷斯顿市镇中心区这样的新都市区将会被不断推出，以满足大众的需求。

我们还有一些最新的例子。在新墨西哥州阿布奎基市附近的梅萨·德尔·索，森林城企业集团（Forest City Enterprises）和考文顿资本合伙公司（Covington Capital Partners）合作在25平方英里的未开发土地上规划建设，包括引入将会给这个新城市带来独特特性的工作岗位及各种行业。这个城市最特别的地方是它将成为电影工业之家。它的规划是为所有收入阶层的居民提供住所，避免出现提供服务的人员没有足够的经济实力与他所服务的对象居住在同一座城市这种如今非常常见的现代化后遗症。

在中国，东滩新城正在距上海不远的一座岛上热火朝天地建设。这座新城由一家叫奥雅纳工程顾问公司（Arup Group）的英国公司设计，计划到2050年为50万人提供家园。它将是一个步行城市——按照规划，所有传统的小汽车都将被禁止进入东滩。

我最近在俄罗斯碰到了一位参与康斯坦丁诺夫新城建设的经理，康斯坦丁诺夫新城是一座正在建设中的紧邻莫斯科的新城市。城市将建在一个12平方英里的范围内，这接近梅萨·德尔·索的一半。这个城市也是一个经过认真规划的社区。巧的是，它的规划者也打算把它设计成电影工业之家。我碰到的这位俄罗斯经理说他从未听说过梅萨·德尔·索，然而，这两座城市显现出了太多的相似之处。全世界的

创新精英都在关注城市拥挤的问题，并且都在着手解决这一问题。从根本上看，建造新城市是由于人们对此有非常明确的需求，而现代建造技术的进步又为这种需求的实现提供了可行性，同时，城市设计理论的进步也使得这一切变得顺理成章。

这些新城市建设项目成为了对抗住房价格急速增长这一趋势的一个重要组成部分。这并不是说现在深受大多数人喜欢的地区周边不存在土地短缺的情况，从世界历史来看，几个世纪以来，人们总是持续地开发更多土地、更深入地利用土地，或者移民到其他地区和其他国家开疆拓土。尤为重要的是，历史上推动国际政治进步的动力来自于经济地位不平等所引发的仇恨，这种经济地位不平等主要是由拥有财产特权的阶层对其他阶层的残酷剥削而产生的。为了尽可能解决这个不平等问题，历史上多次出现了通过修订与物权有关的法律来推行的土地改革。

事实上，美国的次贷危机本身从某种意义上说，是又一次这种土地改革所导致的结果：美国政府对推进居者有其屋的承诺不断加码，因为居者有其屋是最近几次大选中的主要议题之一。20世纪90年代和21世纪初出现的通过调整上下限放宽借贷限制的情况，就是这个政策目标的直接后果。更加普遍的情况是为现有的土地拥有者和住房拥有者带来巨大财富的土地开发限制政策，这种政策直接阻碍了新的建筑项目的开工，而且从政治角度上看是很脆弱的，因此，从长期来看它们最终将被推翻。

目前的现状是，这些能对一波大的住房价格浪潮起到调节作用的安全阀的前景尚不明朗。通过针对这些困扰主要城市中心区的问题进行的新规划，我们可以建设起大量全新的城市中心区，这些地区就算规模上没有老城区那么大，也会在很多方面拥有数不清的那些老城区所不具备的优势。这些新的中心区最终将会与老城区展开面对面的竞

争，并抢走很多原本属于老城区的价值，促使这些地区的住房价格降下来。

## 短期及长期的对策

在这次住房市场泡沫期间有一种奇怪的舆论倾向，认为价格上涨总体上看是好事（其他泡沫也有类似的情况）。当我与新闻记者谈到住房价格有可能下降的观点的时候，常常被骂作“乌鸦嘴”。可是住房价格下降无论从什么方面看，都不应该被看成是坏事。如果住房价格下降，相对于我们的收入来说，我们会变得更加富有，更有能力投资新的住房。我们中的大多数人都有子女，甚至是孙子孙女。我们很关心他们，也关心社会上的其他人，我们希望他们将来有能力购买住房。不管怎么说，稀缺不是好消息，低价才是。

那种认为公共政策应该维持地产神话，防止住房价格出现崩溃的观点，是一个彻头彻尾的重大错误。从短期看，住房价格的突然下跌确实有可能破坏经济，产生令人讨厌的系统性影响。但从长期看，住房价格的下跌是一件再明白不过的好事。

这种短期 - 长期悖论使人不禁想起凯恩斯的一个经济学悖论：从短期看，我们害怕储蓄率的突然上升，因为它可能引发一次衰退，但从长期看，我们则期望更高的储蓄率，因为我们需要这些资源来保证未来有足够的投资。

因此，我们必须将短期和长期分开来单独进行考虑，而且针对这两者的应对政策也应该有巨大的不同。下一章将集中讨论次贷危机解决方案的短期部分，再下一章将会提出长期的解决方案。

## 第四章

### 金融危机下的救市行动

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所有针对次贷危机的解决方案，不管是已经在美国尝试过的，还是刚刚正式提出来的，实质上全部都带有救市的色彩。下面所列出来的这些措施都有力地证明了这一点：美联储的降息，美联储通过定期标售工具、定期证券借贷工具和一级交易商信用工具向陷入困境的金融机构放款，寄给个人的退税支票，联邦住宅管理局的还款期宽限，房利美和房地美对按揭上限的松动。

现在，让我们先来理清楚“救市”（bailout）这个词的含义。实际的情况是，这个词只是最近才引起了大家的重视。所谓的救市，就是由政府或其他组织对那些不负责任的个人或法人实体所采取的施救行动，这些个人或法人实体由于不遵守规则或者没有采取合理的预防措施，使自己身陷困境。现在在英语里，这个词还被用来表示父母给那些正常吃饭时间不愿坐下来好好吃，而在夜深时哭闹着喊肚子饿的小孩子做夜宵这样的行为。

通过电脑检索英文报纸，我能找到的用来表达类似“救市”意思的词，最早见于1950年，文章的内容是批评在大萧条时期设立向破产企业提供贷款进行救助的重建金融公司的行为。而在此之前，这个词几乎都用来专指飞行员从一架失事的飞机中跳伞逃生的举动。

当然，任何一个政府行为，如果导致之前的合同失效或者是合同方的期望落空，都将被大家说成是某种程度的不公平行为。在19世纪，对这种情况最常用的表达方式是“破产救济”及“风险和过度交易补贴”。而“救市”这个词的语意更强烈，它在英文里隐含有放弃正在飞行的飞机跳伞的意思。



这个词只是到了最近一段时间才开始被普遍使用，而且在其现代语境里，还含有缺乏公平性和连贯性的意思。救市行动对那些因为自己更具有责任心而没有身陷困境，因而不需要被施以援手的人来说，显然是不公平的。那些遵守纪律，按规定时间安安静静坐到餐桌边吃饭的孩子同样也会感到很不开心。如果政府采取的是财政救市行动，那么最终为救市行动买单的其实还是纳税人。

救市这个词的使用通常情况下似乎还含有存在这样或那样的欺骗的含义。在父母给一个孩子加餐的时候，他们通常都希望其他那些遵规守纪的孩子不会注意到这个调皮的孩子得到了特别的关照。这个调皮的孩子会找一个牵强的借口来解释为什么在吃饭的时候没有好好吃的原因。父母一般都会当着其他孩子的面接受这个明显牵强的借口，为自己的行为寻找理由，并以此让大家相安无事。这种行为模式甚至有可能成为父母和被宠坏的孩子之间一种心照不宣的秘密约定。当那些遵规守纪的孩子看清了这种虚假之后，就会觉得自己受到了不公正的对待，在以后的活动中可能就会失去遵守规则的主动性。

当次贷危机迫使美国联邦储备局大幅度降低利率来保护那些濒临破产的公司的时候，他们的行动必须要能对这些最不负责任或者过于喜欢冒险的、濒临倒闭的公司产生极大的影响。降低利率给他们提供了资源，但这些资源不会像变魔术一样凭空出现。这些资源的一部分来自于那些靠基金收益生活的人，他们一般投资于短期货币工具，比如货币市场基金或者是储蓄账户，他们将会看到自己的收入在缩水。如果降低利率最终导致了较高的通货膨胀出现，那些拥有按货币方式计价的资产的人将蒙受损失，而美联储在整个过程中都没有提到谁将最终成为救市行动的受害者。

当次贷危机迫使美国联邦储备局在2007年12月启动其定期标售工具去救助那些濒临破产的存款机构时，它其实是再一次用其他人的资金去帮助那些不是很负责任的机构。尽管这次行动采用的是面对所有

存款机构进行公开竞价的形式，但定期标售工具最终还是使那些最需要得到帮助的机构获得了它们不可能在交易市场上得到的低利率。如果美联储以不恰当的折扣拍卖出了足够多的资金——在由纳税人承担风险的情况下按这种折中的办法接收抵押物——这就是一次很典型的救市，美联储的贷款项目（比如定期证券借贷工具和一级交易商信用工具）本质上跟这种方式并没有什么不同。由于具备了这样的特点，这次救援行动真可以算得上是历史性的突破，因为这是自20世纪30年代以来，美联储的救市行动首次超出了它直接监管之下的银行业范围，扩展到了其他的行业。而且，通过这些项目，美联储提出以贷款债券抵押物的方式接手这些债券，包括次贷合约，而这些债券目前还没有现成的市场来进行交易。

很显然，假如存在着这样一个行之有效、可以为这些债券提供一个更好价格的市场，那么这些公司就可以考虑在这个市场上出售这些债券。美联储正异想天开地在交易市场的问题上提出一些可望而不可即的东西。现在存在的问题是没有人知道这些债券的实际价值到底是多少，因此我们可以说美联储正努力通过投资那些其他人根本不碰的债券，把风险揽到自己身上，这显然也得算是一种救市行为。美联储刻意回避自己正在接手的这些风险，声称对于这些贷款来说，所提供的相应的抵押物是适当的，但现实的情况是，作为一个政府机关，美联储正在接手别人不会考虑，至少在同等条件下不会给予考虑的债券。

谁在为这个救市行动埋单？当然，如果美联储最终没有在这些抵押物上亏钱，那谁也用不着付钱。但是，一旦这些抵押物的价值出现亏损，也就意味着用来支付这些违约贷款成本的钱出现了缺口，这样导致的最直接后果就是美联储还给美国联邦政府的钱变少了，因此，在这种情况下，最终出现的情况要么是政府提高公民的纳税额，要么是提高联邦政府的债务，要么是降低政府服务的水准，要么是前面列出的所有的这些后果都综合在一起。

当《经济刺激法案》生效后，美国政府给个人消费者邮寄了退税支票来刺激他们的购买欲，这项措施在某种意义上看也是一次救市，但这是一次局部的救市，因为退税支票主要寄给了那些低收入的纳税人，而没有给那些收入较高的纳税人。因此，退税款其实是由纳税较多的人尤其是那些收入较高的人，给他们支付的。

就算不考虑退税没有给到高收入纳税人这个事实，从根本上看，这仍然是一种把戏——即使不是一种刻意的欺骗——把他们如意算盘的宝压在大多数收款人没有能力认识到今天退税回来的支票会使他们在未来缴纳更高的税上。因此，这种退税对一个人一生的税后收入来说，没有任何切实的影响，同时，对一个理性的、深谋远虑的人的消费行为也不会有什么影响。

低收入人群完全有理由怀疑退税支票对他们是否真的是一份厚礼，是否是一份他们不需要在未来通过更高的纳税额来还的礼物。他们会在现在花掉这笔钱的同时，期待着未来更多的救市措施——事实上这样的消费效果也正是美国政府当初寄给他们比例相对更大的退税支票的原因。

当美国政府宣布解除对联邦住宅管理局、退伍军人管理局以及房利美和房地美的贷款限制时，这听起来好像是对没有资格申请按揭的那些一生中麻烦不断的住房购买人，以及那些可以按一个更好的价格向这些购房者出售住房的地产商的一种福利。但这种福利的根本源泉在哪里呢？政府本身并不从事创造财富的工作，它只是简单地从一个人的兜里拿走这笔钱，又把这笔钱交到另外的人手上。那么最终为这些行为付款的人到底是谁？

根本用不着大惊小怪，当然还是纳税人，并且这还意味着这场游戏的输家是那些非常无辜而且行事谨慎，根本没有参与到住房市场泡沫活动中的那些人。这些政府机构和政府主办的企业如果不是很名正言顺地由美国政府资助的话，最终的后台老板也肯定都是美国政府。

如果这些按揭以后又出现麻烦，美国政府还是会利用纳税人来把他们再次拖上岸。这就是这些机构区别于私营企业之处，而且这些不同点很清楚地表明所有这些活动其实都是救市行为。

## 为什么救市行动是必需的

尽管有刚才提到的那些相当令人不快的后果，但对次贷危机主要的短期矫正（非常不幸地）还是一些救市行动的组合。当然，这些措施也有可能会出现没能产生任何效果的情况。救市行动吸引了公众的注意，而这些行动可能是以牺牲大多数纳税人的利益来应对那些极端的情况。在防止某些多米诺牌倒下的同时，这些救市行动也有可能伤害到大众的信心。救市行动的采用可与试图通过对病得最厉害的人以及离死亡最近的人全力救治，以控制疾病流行的行为相提并论。因此，由于这次次贷危机的影响程度巨大，次贷危机的后果主要是影响相对弱势的社会成员的这种非对称状况，我们还是必须尝试着进行救市。这就是本章后面将要深入讨论的次贷危机解决方案中的相关部分。

尽管政府一般很少使用“救市”这个词，但它事实上从很久以前就已经开始为公民进行过救市了。在戴维·A·摩斯出版于2002年的《当其他所有方法都失败了：政府是最后的风险管理者》一书中，他认为：“风险管理在美国形成了一整套行之有效而且广泛深入的公共政策。没有它的存在，美国的经济将面目全非。”事实上，经济理论学者必须时刻考虑到那些隐藏得很深，没有明确说法的世界各国政府与它的公民和企业间达成的那些风险管理合同，忽视这些普遍存在的合同关系将会犯下严重的理论性错误。

让我们再一次回到不按时吃饭的小孩子的例子上，现在让我们假设孩子的父母中有一方心情很忧郁，在这种情况下，对一个孩子大发

雷霆可能会使整个家庭的情绪失控。聪明的父母在当时的情况下很可能会放过这个不守规矩的孩子，事后再考虑怎么样去教训他。

家庭的情况与国家的情况并不完全不一样。很多家庭都存在一些长年累积下来的状况。不和与怨恨可以被暂时掩盖，但这些问题总会时不时地冒头。陈年旧账会被一次又一次地重新翻出来。在这种气氛紧张的时刻，很重要的一点就是我们要讲出过激的言辞，以免对方对此一直耿耿于怀——甚至一年后都还耿耿于怀，并且又成为了下一次冲突的口实。

与此类似，政策制定者必须努力防止出现经济灾难，因为这种灾难有可能引发对我们经济制度长期不信任的情况出现。20世纪30年代发生的大萧条已经离我们远去——至少从时间上看是如此。尽管我们对那些过去的日子一直都没能忘怀，但现在我们的心理状态已经达到了不再受当时那种情绪所左右的程度。

那些标志着大萧条开始的事件为我们后面几十年的生活设定了基调。在大萧条中，首先被抛弃的是那些曾经拥有良好的而且看起来似乎还很稳定的工作的人，他们的灾难也由此开始，比如说由于丧失抵押赎回权而失去家园。有的人只留下了很可怜的一点点财产，因此不得不满脸羞惭地随着等待救济的人流缓缓移动，去领取面包，或者时不时地在分发食物的流动厨房里露脸。被裁员的中年人只能靠沿街出售苹果谋生。那些占据了报纸上主要版面、等待救济的如长蛇般的人流和沿街叫卖的小贩的照片，让整个社会增添了更多凄凉的气氛。这些景象深深地烙进了美国民族的精神里，成为了那个时代的一种象征，代表着整整一代人的耻辱。

通过探寻这些表明金融崩溃的证据，我们被带回到20世纪30年代，当时由无数投资公司共同结成的一张巨大的网开始被一点点撕破。当那些非常可靠的银行突然间关门——特别是因为没有能够及时提出自己的存款而身无分文的时候，人们感觉自己被深深地伤害了。

那些排着长队，试图从倒闭的银行取回存款的无辜人群的照片，为我们展示了另一幅活生生的景象。这使得当时的情绪大杂烩中又加入了愤怒和失望两种元素。

这些经历，以及反映这些经历的那些影像，标志着美国人内心世界的急剧变化。这些变化是根本性的，反映出了深层的悲伤。弗雷德里克·路易斯·艾伦在他1931年出版的《只在昨天：20世纪20年代的美国简史》一书中认为：“（在20世纪30年代开始的时候），不管漫步在美国任何城市或城镇，人们很难不注意到这些景象。”女士的着装风尚变了：短裙消失了，取而代之的是更正式、很少暴露的款式。

“终于过去了”的这种感觉很是如此地让人兴奋，我们正昂首迈进一个甩掉所有禁忌的新时代。浪漫、充满诗意的戏剧和小说重新流行，取代了那些挑战我们当时价值观的作品。对企业家及精明生意人的追捧的热情开始退潮。对当时还算惊世骇俗的先锋理论的弗洛伊德精神分析学说的热衷也变得不是很常见，甚至对宗教的思考也向更传统的方式回归。

1932年，精神病理学家W·贝兰·沃尔夫写道：“整个国家笼罩在心理疾患的阴影中……那些失业的美国人呆坐在家中收听广播（前提是他还没有被逐出家园），或者谦卑地站在那些领取食物的等待救济的人群当中，或者满脸愧疚地向社会机构申请救助——如果这些都被拒绝了，他就只能向最无法忍受的那种人格侮辱低头。奴隶的道德观又回到了我们中间。”

20世纪30年代，激进的情绪在进一步强化。哈维·克勒尔在他出版于1968年的《美国共产主义思潮的全盛时期：大萧条时代》一书中，描绘了美国人，包括工人和知识分子，怎样被共产主义理论所征服，20世纪30年代也因此被称为“红色年代”。劳资关系出现恶化，双方甚至产生了敌意。劳动争议的激烈程度非同一般，有的时候甚至

演变成了暴力。从对经济信心的影响方面看，目前的次贷危机在某些方面与大萧条的发端非常相像。

弗朗索瓦·棱勒于2007年出版了法文书《我们所面临的20世纪30年代的危机》，这位法国商业杂志《回声》的编辑发现，价值观和传统习惯的改变，信心的丧失，甚至是失望情绪的出现，都是同时发生的。身处那些美好的年代时，人们都非常乐意进行合作，并乐意向他人提供帮助，但当对未来的乐观态度开始变调时，他们就会变得自闭、易怒、恐惧和自私。

本杰明·弗里德曼在他出版于2005年的《经济增长的道德意义》一书中，引用了世界发展史上的大量证据，说明当人们看到未来充满无限希望的时候，他们更能进行建设性的协作，支持民主的理想以及政治和社会的自由化；而当人们看不到未来的发展前景时，他们的理想就会出现大的倒退。

弗里德曼指出，在世界上的大多数地方，特别是欧洲，20世纪30年代发生的大萧条从所有的方面都证明了他的理论完全可以预言法西斯主义、反犹太主义、种族主义、民族主义以及最终爆发的第二次世界大战。但他认为20世纪30年代的美国对于他的理论来说“显然是一个例外——很多方面的例外”。在美国出现了令人费解的合作和改革精神，而且最终通过新政而得以具体化。虽然当时面临着巨大的动荡局面，但与此同时又具有积极的制度变革和进步的理性追求，这些积极的方面冲抵了由萧条产生出来的绝望情绪。劳资双方以及穷人与富人间的敌意，也由于有了正共同迈向更美好的明天的共识而得以缓和。

在面对第一次世界大战结束的局面时，美国和欧洲对大萧条所做出的反应开始时是完全平行的，这点我们可以从凯恩斯的《和平的经济后果》一书中找到明显的证据。获胜的盟国向战败的德国提出高昂的战争赔款要求，根本没有考虑到这种要求对经济以及社会生活的其

他方面可能产生的破坏，这些条件可能在战胜国和战败国双方的国家间以及民族间引发强烈的对抗情绪。凯恩斯写道：“如果法国自己的金融情况处于混乱到几近崩溃的状况，如果法国被从精神上与自己的朋友孤立，如果流血、苦难和盲从的情绪从莱茵河一直向东蔓延到两个大陆上，那么，法国会因为把岗亭建在莱茵河上就能获得安全感吗？”

历史证明凯恩斯对当时那种不合时宜的经济安排可能带来的社会变化的忧虑是正确的，他所忧虑的那些问题很可能就是导致在一代人之后发生第二次世界大战的原因之一。我们必须时刻关注公众对公正和公平待遇的理解，关注公众对我们的经济体系向前发展，并为所有人提供公平机会所具有的信心，然而这个信心目前正被这场次贷危机严重地侵蚀着。

我们正面临着这样的风险，对当下的经济危机的不当处置可能会使我们的社会退回到很久远的过去，这种倒退不仅仅表现在经济生活方面，同时也表现在社会生活方面。我们现在必须立即行动，防止任何可能危及我们社会团结的严重危机出现的可能性。对经济体系的信任以及信心的丧失可能产生的后果，不仅会影响到经济体系本身，也会影响到整个社会组织，让我们大家遭受更多本不应该出现的苦难。

现在所需要的紧急的修补与大萧条时期所提倡的情况类似。曾任美国住宅银行与货币委员会主席的亨利·B·斯蒂格尔在1932年时说：“当然，它确实牵涉到违背现有的政策和观念的问题，但我们在眼看着一所房子正在燃烧的时候，不可能再站在旁边，对采用哪一种方法灭火进行无休止的辩论。在这种情况下，我们会本能地采用任何最方便而且能最快达成目的的最有保障的方法。”

这个火的类比是比较恰当的，因为我们当时和现在所共同面临的真正的问题，确实像一场突发的大火——飞快地从一个人到另一个人、从一项业务到另一项业务，快速传播各种问题。次贷危机更为严



重的后果在于“系统效应”——那些在整个经济体系中都可能感觉得到的效应。在医学领域，一个外伤的系统效应指那些对身体的各个部位，包括远离初始创伤的身体部位都会产生影响的情况。比如说，对某一个肢体的伤害会引发这个肢体出现坏疽，而坏疽会导致死亡，要阻止死亡则要及时将患有坏疽的肢体截掉。

在经济领域，系统效应全部都是外在的，特别是那些在极端情况下表现出来的效应更是如此。通常情况下，经济领域的系统效应都与投资者信心以及心理传染和社会传染有关。一个经典的例子是一家全国性的银行的营运情况会受到某一家银行或少数几家银行倒闭的影响。当存款人有理由认为可能失去自己的存款时，他们就会从所有的银行中取出他们的存款。然而就算是那些行事最为稳健的银行，也只会将所收存款中的少部分留做存款准备金，而遇到这种灾难性的提款风潮时，很难保证满足全部的提款要求。这种部分准备金的银行业务正常运行需要达到双重均衡：人们信任银行，因此，银行看起来就值得信赖。反过来说，如果人们对银行失去信任，从银行抽走资金就会致使银行倒闭，这时，信任的缺失就成为了一个典型的“自我实现预言”。要弄清楚从一个均衡转变到另一个均衡的原因并不是很容易，因为这往往同时包含社会传染和经济传染的情况。

在1929年股票市场崩溃后出现，对美国和世界其他发达国家产生深远影响的20世纪30年代的大萧条，就是一个非常典型的系统性故障。实际上，危机在1929年之前就已经开始了——主要表现在住房市场上，在此之后它开始向股票市场蔓延，然后引发了严重的银行危机，并随即对几乎所有的行业都产生了影响。

经济史学家克里斯蒂娜·罗梅尔认为，20世纪30年代大萧条的出现符合公众对1929年股票市场崩溃所做出的逆反应。她发现，预测人士对这次股市崩溃的经济影响的反应与他们对1920~1921年间和1923~1924年间经济低迷期间所做出的反应截然不同。1929年的崩盘情

况一出现，这些预测人士（尽管他们没能预测到紧随其后的大萧条）都异乎寻常地表达了对经济前景充满了巨大不确定性的看法。罗梅尔相信，正是这个不确定性导致了严重的消费者支出紧缩，并最终引发了大萧条。

经济低迷的出现可能会最终改变经济政策的政治支持属性——包括那些针对正在加剧的低迷情况的政策。在萧条时期社会对劳工的支持热情进一步高涨，正如经济学家哈罗德·科勒和李·奥哈尼安所说，这是由于政府政策鼓励企业接受工会的要求，就算是这些要求其实只是为了内部群体的利益而牺牲外部群体的利益（外部群体指的是那些当时暂时没有工作的人）。1933年《国家工业复兴法》是新政体系中比较缺乏创新意义的一个措施，它授权总统可以同意企业间进行价格联盟，前提条件是企业接受工会的某些要求。在该法案于1935年被宣布违宪后，罗斯福政府仍然对那些满足工会要求的企业在进行《反托拉斯法》制裁的时候故意睁一只眼闭一只眼。

今天存在着这种可能性，就是出现我在《非理性繁荣》一书中称为“关注重叠”的那种现象，让我们开始忧虑那些极有可能出现、已经在我们的意识里沉寂了多年的经济问题。在关注重叠现象中，开始的时候是经济事件或者经济问题成了很多谈话和媒体上的文章所关注的焦点，这种现象一直会持续到所谈论的这些事件在公众的思想中占据了主导地位为止。这些变化是质变性质的——通过某些故事、理论和事实——而且不可以用分布如此广泛的各种不同的消费者信心指数来进行衡量。事实上，长期持久而且剧烈的变化经常会在那些传统的经济学家发现任何先兆之前非常突然地发生。

次贷危机没有被包括在我们制订计划时可能考虑设立的应急预案里，我们被困于自己错误订立的契约安排之中。很多人很显然是在本应该行事非常审慎的时候，被这种类似天上掉馅饼似的好事和快速致富的欲望所引诱，陷入了金融世界的汪洋大海之中；而另外一些人陷

入困境却并非是因为自己的错误，而且他们也正在拼命地力求自救。这些情况跟我们所能想象到的完全一致，没有人能够在如此有限的时间内快速而且令人信服地鉴别出这些待救的人中谁有错、谁无辜。

我想强调的是，在一个随时存在崩盘危险的不动产市场中，可能存在的系统效应远比住房价值的降低更重要。因为无论住房的价值降低多少，作为房子来看，它仍然是同样的房子，能为我们所有的人提供同样的功能。但如果是经济系统的产出率下降，那就是实实在在的损失，而不只是停留在纸上。资产负债表上反映的由于住房价值降低导致的人们的损失，只是一个纯粹的财务损失，但是如果让这些情况肆无忌惮地破坏公众的信心，这些损失就有可能转变成经济系统中真正的巨大损失。

在类似我们现在正在经历的这种金融系统失灵的情况下，我们必须搁置政治和政策上的分歧，立即退回到一个更为基本的社会契约的基础上——这个社会契约指我们整个社会作为一个整体，应该保护所有人免遭重大灾难的困扰，同时控制住那些已经出现的问题，使之不要再蔓延（对以上所有说法的释义应该都是常规性的释义）。这样一个社会契约对于我们来说，是一个最有价值的保护体系，因为我们作为一个社会整体，不可能做到对所有可能出现的不可预见的情况都预先进行非常全面的规划。

从实际情况看，各式各样的救市措施在过去的几个世纪以来，一直是支撑各个经济体的稳定机制的一个组成部分，包括美国的也包括所有其他国家的。美国联邦储备局自1914年成立以来，已经对很多陷入危难的银行进行过救助。英格兰银行在过去的数百年间也一直在做着同样的事情。我们必须面对这样一个现实：过去我们没有办法避免救市的情况，今天我们同样也没有办法做到不救市。

当我们很自然地争辩救市行动对那些没有得到这些好处的人不公平的时候，事实上，对什么是公平、什么是不公平的界限划分也很难

做到泾渭分明。不公平的现象在我们的经济体系中一直就是一种司空见惯的情况，收入的巨大差异就是一个明证。这在某种程度上是很久以前那些历史上的不公平所遗留下来的影响，最著名的当然就是美国贩卖黑人作为奴隶的事件。直到今天，美国黑人作为一个整体看，还没有能完全摆脱这段受压迫的历史带给他们的经济阴影。

美国联邦住宅管理局以及类似的美国政府主办的企业（房利美和房地美），其主要的作用就是对那些低收入者提供住房补贴，这种做法可以被看成至少是在部分修正社会中存在的收入不平等的情况。另外，补贴低收入者的住房或许还具有正面的社会外部效应，这种外部效应的价值是无法估量的。如果处在社会边缘的成员中有人能通过拥有住房而感觉到在为自己的成功进行投资，他就会对我们社会的和谐产生更高的期待。如果现在对那些低收入者提供更多的救市措施的话，这或许可能正是对我们所有人的一个善举。也许，次贷危机正磨砺着我们的社会良知，而且是以一些无法直接观察到的方式。

## 新的住房房主贷款公司

我们需要一个新的组织，仿照在上次惨烈的住房危机中建立于1933年的住房房主贷款公司，为贷款购买住房的人提供更便捷的信贷服务。我们正面临着这样的机会，按照设立新的住房房主贷款公司这个思路起草的计划获得了大力的支持，包括经济学领域的艾伦·布林德和马丁·费尔斯坦以及法律领域的迈克尔·巴尔等人，他们都力挺这个计划。然而在国会方面，对这个建议的态度仍然存在着非常大的分歧，现阶段来看，它仍然可能只被当成一项提议。国会最终的任何决议案都有可能使开始时的方案被掺水，就算是国会做出了意义深远的决议，但如果次贷危机的情况持续恶化，国会在以后的日子里也不会为这个机构提供充足的额外资助。

住房房主贷款公司可以接受以按揭作为贷款给按揭贷款方的抵押物，条件是要求该按揭的条款要比当时通常所见的条款更合理。通过这种方式，住房房主贷款公司既解决了急迫的丧失抵押品赎回权的问题，又鼓励了远期的经济创新。这也是一家新的住房房主贷款公司今天能够而且也应该做到的。

本质上说，救市的所有潜在成本都是由广大民众来承担的，不过这些钱并没有装入哪一部分投资者的腰包里。本·伯南克经常呼吁全国银行减记数以百万计的按揭贷款本金，他要表达的真实意思其实是本金减记“最有利于保障借贷双方的利益”。当然，有些限制性的减记是基于放款人的利益：如果放款人未能为陷入困境的购房者改进按揭条款，那么购房者很可能就会简单地放弃这部分财产，而且被放弃的这部分财产通常是处于一种价值受损的状态，因此放款人将面对的是巨额的法律成本和时间成本。放款人知道得很清楚，如果购房人看到有很合理的按某种优惠的条款继续支付房款的希望，让购房人仍然保有住房其实符合放款人自己的最大利益。伯南克很小心地不让他的话被当成是让某部分不幸的投资人去承担处理美国经济系统效应成本的建议。但是，由于将自己的关注范围限制在了那些针对借贷双方共同利益的行动上，伯南克所做出的建议其实只是让放款人继续做他们已经在做的事情。不过他的讲话在处理次贷危机中没有产生实际效果，因为这些讲话并没有提供任何经济方面的砝码。

美国联邦参议员克里斯托弗·铎德提出了一个联邦住房所有权保护公司的概念，一个现代版的住房房主贷款公司（铎德后来放弃了这个新建公司的主意）。在一次记者招待会上，他和美国联邦众议员巴尼·弗兰克一起提到了授权联邦住宅管理局为束手无策的借款人那些已经经过再融资安排的按揭提供高达3 000亿美元的担保。他们并没有把这种情况说成是救市或者给纳税人增加负担——但毫无疑问的是，如果违约率变得很高的话，出现这种情况的可能性是很大的。

建立一个新的机构（比如像住房所有权保护公司）所产生的效应，要远胜于仅仅扩大联邦住宅管理局的融资权限，因为一个新的机构更有可能为按揭贷款人提供除现金以外的更多服务，一个新的机构也更能吸引领导人去关注这些基础的变革。建立这样一个机构也是一种宣示的方式，表示我们要严肃认真地解决这次次贷危机的决心。我们现在也需要特别留意住房房主贷款公司解决方案中其他方面的情况。具体来说，我们需要关注住房房主贷款公司的再生，建立新的按揭条款规则，这一点我将在下一章中进行论述。

## 正确制定短期解决方案

与具体实施的短期解决方案同等重要的，是隐藏在这些方案后面的心态。我们必须正确制定这些方案，保证它们从一开始就运行在正确的道路上。这就意味着我们必须正确认识问题的范围，为解决这些问题分配好足够的资源，并且设定正确的政策基础目标。

如果想要让我们在这里讨论的短期解决方案有成功的机会，我们的领导人首先必须在第一时间承认存在着严重的问题。如果领导人继续声称现在的经济转向只是一次普通转折的话，这种态度对解决我们所面临的问题没有任何帮助。这种方式是赫伯特·胡佛在大萧条期间采用的策略，当需要面对真正的根本性变革时，这种策略通常会被每一位政府及商界领导人所奉行，然而这只会导致人们对那些身居高位的人企图通过暗示的力量操纵公众思想的卑劣手段进行谴责。

我们必须做好充分准备，必须实施更多的减税措施，而且可能要历时很多年。这些减税措施可能最终会对国家的债务情况产生负面影响。只有我们真正认识到这个问题的严重性，这种可能性才有可能被大家所接受。

我们还必须注意银行和证券商的资本充足情况，因为如果住房价格持续剧烈下降，将会削减它们的资产，使它们很轻易被置于不断增长的压力之下。如果它们的资本不足，而且让它们的生意伙伴明显地感觉到这一点的话，就会使系统的流动性进一步下降，这种情况在一场正在不断恶化的危机里会以非常惊人的速度传播。

我们必须心甘情愿地投入足够的资源来确保救市的行动能够得到正确实施。领导人应该面对现实，勇敢地承认这些行动就是救市，并且耐心细致而且足够冷静地对采取这些行动的原因进行必要解释。只有通过这样的努力，才能将足够的资金投入这些行动中，并产生我们所期望的效果。

设定好合适的政策关注点也是非常关键的问题。救市的目的不应该是保持住房市场、股票市场或其他任何投机市场的高市值。救市的根本目的是防止出现对我们的体制和我们相互间经济信心的丧失，并同时保持一种社会公平的理想追求。基于这样的考虑，救市的重点应该主要放在防止绝大多数普通人产生悲观情绪这个点上来。

至于说住房的价格，政府政策的立足点应该在于限制房价。我们需要更多经过规划的城市中心区，通过建设更多的中心区可以增大供给量，从而把城市的住房价格降下来。《1968年住房与城市开发法案》的起草人就非常清楚这个需求，而且这个法案建立起了一种机制，使这种设施完备的新城市的建筑商可以向住宅与城市发展部申请支持。这个立法的通过导致了一些新的城市中心区的出现，但这个法案的力度还不够，我们需要通过新的立法来支持新的城市社区的开发。

针对当下的这场危机，我们所面临的问题的差异相当大。我们必须为确保经济的公正心甘情愿地埋单，这样说的意思是需要分配一些资源来鉴别——当然是在尽可能的范围内——在这些按揭借款人中谁

是被误导、被不公正对待的，然后将救市的焦点主要地集中在他们身上。

一些非营利组织，比如“自助组织”和“美国邻里互助组织”，都非常愿意花时间去帮助那些具体的房主来摆脱困境，但这些组织的资源在目前这场如此大规模的危机面前显得微不足道。美国政府的“希望现在行动”也无法提供足够的解决方案，因为它没有官方的资源支撑，它只是一个政府主导的商业联盟。如果住房价格持续下滑，接下来的几年将会有更多的房主陷入困境，这将成为一个对我们来说代价高昂的问题，并将使我们现在已经捉襟见肘的系统面临更大的压力。

美国政府现在应该花费资金来重组救市体系，以便这个体系能运作在一个更具有系统性的基础上。新的住房房主贷款公司可以用来处理复杂的救市程序，逐一修改贷款条款，对那些拿出时间和精力来帮助具体借款人客观地认识清楚现实的状况，并协助政府对那些符合条件的借款人提供资助的按揭放款人给予相应的奖励。

在我们成功地控制次贷危机不再进一步恶化的情况下，我们必须转向长期的解决方案，防止我们已经身陷其中的这种困境再一次降临。次贷危机解决方案中有关这部分的内容将是我们下一章的主题。



## 第五章 金融民主的愿景

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次贷危机解决方案（在防止未来再次出现类似现在这场危机的情况的同时，尽可能减轻这场危机的余波可能产生的负面影响）的关键是使金融走向民主化，把那些合理有效的金融原则的应用范围扩展到一个更广阔的社会层面上，并采用所有我们现在已经掌握的现代技术来达成这个目标。

从长期来看，通过这样的方式，类似我们现在正在经历的这种房地产泡沫的发生率会大大降低；就算这种泡沫仍然还会产生，市场自己也会建立起合理的机制来对此做出适当的反应，而不是像我们在2007年次贷危机爆发后看到的那种亡羊补牢似的快速修补。

从历史上看，银行系统存在着非常大的不稳定性，例如在1797年、1819年、1837年、1857年、1873年、1893年、1907年和1933年，美国都出现过非常严重的银行危机。这些问题经过多年来所进行的很多次体制革新后，在很大程度上已经得以解决，其中比较著名的有1913年美国联邦储备体系的建立和20世纪30年代早期美国的新政改革。但这些有效的改革措施尚未能触及到我们经济体系里的所有领域，特别是住房领域，这个领域现在仍然是在一种事实上非常原始的金融意识的指导下跛足前行。除非我们能以更广阔的视野来考虑对困扰绝大多数房主的金融体制进行改革，否则我们将持续不断地遭受一次又一次危机的打击。

由于引发这场次贷危机的那些问题对我们来说是如此司空见惯，以至于一直到现在都还没有人对我们现行的金融体制所存在的缺陷进行广泛深入的检讨，这是一个十分发人深省的现象。当市场开始滋生

泡沫，而且泡沫已经开始破裂的时候，大多数人对他们将要面临的巨大的经济危机通常只有非常有限的自我保护，而且持有的还是风险非常高的千篇一律的资产组合，当他们失去工作或者病倒后，风险就有可能将他们彻底毁掉。

这些问题被某些人看成是金融系统的一种必然属性，而系统本身又被认为是一种不受任何改革影响的封闭体，就像是大自然的一个产物。而那些成功的体制改革成果，比如在新政时代推出的改革措施，就有力地证明了这个被广泛认可的冠冕堂皇的说法根本就站不住脚。基础性的体制改革不仅是可能的，而且也是必要的。

在建设新的制度基础，启动建立一个更有保障的经济环境所需的改革过程中，次贷危机无情地暴露出有关领导者对这一部分内容是如此缺乏想象力。本章将提出这类体制改革的一些切入方法。

## 讲究技术

在一开始着手进行体制改革的时候，我们首先必须要搞清楚哪些技术可供我们在改革过程中利用。信息技术是我们现在经常挂在嘴边的一个词，对于次贷危机的解决方案，这也是一个关键性的技术。持续发展中的电脑，数据采集及处理能力，“聪明”的技术，以及快速、廉价的通信方式，都为实施好这些次贷危机解决方案——修正经济体制基础中一些耸人听闻的偏差——提供了极为有效的工具。

随着信息技术的发展，在最近几十年间，我们的知识体系在金融数学领域出现了令人十分惊喜的进步。金融数学理论作为经济理论的一个组成部分，让我们可以挖掘出风险管理技术所具备的全部潜能——特别是当这些技术应用于十分广泛的范围的时候，因为我们现在先进的信息技术使得所有这一切想法都有可能实现。理论上的进步也

是非常重要的，因为它们能让我们知道我们可以到达什么地方，以及通过什么方式寻找机会来使这些金融科技提高人们的福利。

金融数学理论帮助我们了解金融合同的双方怎样从合同中获益，并且告诉我们怎样去优化双方的分享机制，以保证全人类的财富作为一个整体能得到增加。如果我们想要避免那些针对危机的政策建议出现矛盾和反复无常的情况（例如固执地坚持对那些没有经过认真考虑，也没有合理动机就莽撞入市的人进行救市行动，或者是站在“另一边的岸上”为救市行为埋单等），我们就必须依靠这个理论。

现代金融理论在代理制理论中占有很重要的位置。代理制理论解释了怎样激发代理商尽可能地按所有交易参与方的利益行事，而不只是考虑代理商自己的利益。这个理论很好地解释了怎样通过构建金融体制，正确平衡各方的动机，从而将道德风险置于控制之下。

在相似的脉络下，人类科学——心理学、社会学、人类学和神经生物学——也正在大跨步地提高我们对人类精神层面的了解，而且这些知识现在也正被应用到金融和经济领域。通过这些理论，我们对为什么人们会犯下这些经济错误有了更深刻的理解，也更清楚怎样去构建新的体制来帮助我们避免再次出现这样的错误。

在过去的几十年间，行为经济学和行为金融学领域的发展也发生了革命性变化，这些学科包括了其他社会科学领域所取得的成果。由于这个原因，很多守旧的金融理论学者拒绝接受这些革命的成果，因为他们担心这会使他们的数学模型失去作用。其实，事实恰恰相反——这些革命为他们的模型的成功运用打开了更加广阔的空间。

否认心理学及其他社会科学对金融理论的重要性，就如同物理学家否认摩擦力在牛顿力学中的重要性一样让人匪夷所思。如果牛顿力学只能在摩擦力可以被完全忽略的领域应用的话，那么它的应用领域大概只能是在航天领域。一旦我们在这个理论中加入摩擦力的理论，

牛顿力学就适用于解决地球上的问题了，而且也成为了为改善我们日常生活质量而设计机械设备的工程师们的基本工具。我们今天面临着一个与上述情况具有可比性的情况，因为行为经济学和行为金融学的出现将极大地促进我们在金融工程领域的巨大进步。

我们可以开发新的机制来解决世界现在正面临的很多基础性的风险问题。但正如我们先前已经注意到的，只有对制度基础进行革新，通过稳定扩大财产所有权，特别是住房的所有权的范围，推动更快的经济增长，这个目的才可能得以实现。

接下来大家即将看到的是一整套改革的建议方案，供领导人——政府的、民间的和商界的，包括美国和世界各国的——借以为住房市场以及其他资产市场铸就一个新的体制基础。归总起来看，本书中所提出来的这些建议措施与美国新政时代为应对20世纪30年代的金融失灵所进行的改革的精神与内容，以及其他制度性改革动议（比如为保障国际间银行系统安全而进行的《巴塞尔协议II》改革）遥相呼应。

由于这些建议在某些情况下很明显地表现出了与过去我们实际情况相比较偏离较大的现象，因此，开始时出现一些怀疑这些建议根本不可能进入实施阶段的声音也就不足为奇了。但是我们必须记住，金融史是在一次次周期性的出现方法上和形式上大突破的基础上发展起来的，而且这些突破通常都是在金融危机的时候出现，比如说大萧条期间出现的新政时代的创新。

我这里所建议的变革具有重大的意义，其中有一部分已经进行过小规模의试验，而且所有的变革都明显具备可行性。整套改革的净效应可能会对整个经济体系产生抗压作用，在体制构架内建立起更大的稳定机制，使买方和卖方的业务交易建立在互信的基础上，而不是通过那种你死我活式的投机方式。

## 全新的信息基础设施

积极筹划一套经过改进后的信息基础设施——一个人和企业管理他们金融事务时所依赖的信息基础工具——不仅是一项很好的政策，同时也是一项很好的经济活动。根据经济学理论，可以自由获取信息是一件给全体大众带来益处的好事，而且已经出现了由私营企业来提供的趋势。此外，信息的缺乏会产生系统效应，这种系统效应是政府应该尽力去避免的外生性负面影响。加强信息基础设施建设将会对改变导致投机泡沫产生的社会传染和信息串流的发生机制产生根本性的影响。

政府对已进行过根本性改进的信息基础架构进行大力推广，将会促进我们最近这些年在信息技术和行为金融学方面所取得的成果进行资本化转变。有些表面上看起来很有前途的信息技术方面的创新在实际运用中一直不尽如人意，因为它们没有按照合理的人类工程学的原则进行设计。举例来说，被称做是金融引擎的金融规划网站的使用情况就相当令人失望。这可能就是问题的根本所在，因为人们在重要的金融事务进行决策的时候不太可能仅以电脑提供给他们的信息作为依据。在对自己的金融行为进行重大改变之前，他们必须跟某一个人进行面对面的交流。行为金融学为信息技术的合理使用提供了很多类似的教训。

在本章中，我考虑了6种主要的改进信息基础设施的方式：推广全面的金融咨询体系，建立消费者导向的政府金融监管体系，采用那些默认的对所有人都有效的惯例及标准，改进有关金融证券的信息披露手段，建立全国范围内经过精心处理的关于个人经济状况的大型数据库，建立一套新的经济度量单位体系。

### 全面的金融咨询体系

那些取得高风险的次级抵押贷款的低收入者随时都面临着利率马上上调的可能，他们基本上注意不到这类按揭所隐藏的其实已经广为人知的风险。他们对存在着的真实风险——在出现危机的情况下，他们不可能为这些按揭取得再融资——根本没有一点儿概念。为什么会这样呢？因为几乎没有任何经济方面的动力来促进通过已经建立起来的交流渠道提供这方面的信息，因此，这些新加入进来的住房所有者在不经意间就承受了惊人的风险。

金融咨询类杂志实际上已经对这些风险进行过报道，因此，当那些拥有较高收入的这类杂志的订阅者了解了这些情况，并几乎是一边倒地转向常规的固定利率按揭时，很多低收入人员被留在了个人的悲剧之中。

要想改正这个公众教育方面出现的失误，第一步是通过制度建设把这种广泛的金融咨询服务推广到能覆盖每一个人的范围，这样就可以确保所有人员（而不仅仅只是最富有的那部分人士）都能获得这些资讯的支持。大多数金融咨询业者都不重视中等收入及低收入这个范围内的顾客，因为金融咨询业者赚钱的方式主要是按照所管理资产的比例收费，或者是在证券买卖过程收取佣金——也就是说，只有富有的客户才能给他们带来期望的收益。为了高效并以赢利为原则管理好他们的业务，很多金融咨询业者对他们的业务范围进行了必要的瘦身，把自己的业务限制在一个有限的范围之内，比如资产组合管理咨询和税收策略咨询等。

大多数人都非常需要获得广泛的基本金融咨询服务，而且需要从有资历和值得信赖的专业人士那里获得这种服务。很不幸的是，只有富有的人才有能力支付得起这种咨询服务。

对于这种状况，解决的方法之一是金融咨询师也采用其他的专业人士（比如律师和会计师）同样的计费方式，按固定小时费的方式收取服务费。全美个人金融咨询师协会已经朝着这个方向迈出了实质性

的步伐，它要求它的会员咨询师签署一份信托誓词，保证不接受在金融产品的销售或推介过程中从第三方获取的报酬。但这个组织现在的规模仍然相对较小，没有加入该组织的金融咨询师大多数都拒绝转向这种方式，其中一个简单的原因就是目前这一类型的咨询服务需求中能达到他们所期望的价格的还非常有限。

这种情况所导致的结果只能是留给低收入人群的咨询服务都是有偏差的服务。举例来说，当他们作为住房购买者时，一般是与房地产代理商和按揭经纪人打交道。房地产代理商代表房子的出售方，因此他的动机就是希望房子卖到一个好价钱。按揭经纪人的动机当然是希望安排一个较高利率的贷款。此外，按揭经纪人通常会以帮助客户获得最好的按揭利率的面目出现，但客户可能不了解的是，他们是从放款方收取费用的。

美国政府一直奉行鼓励金融咨询的政策，规定这项费用可从应缴税额中扣除，但这个扣税政策起到的作用只是鼓励那些高收入人群利用金融咨询，而那些低纳税等级的人本身不大可能从纳税列项扣除中获得什么明显的好处，因此通常他们也不会采用。另外，金融咨询费从应缴税额中的扣除属于杂项扣除，也就是说，对于那些申报了扣税列项的人来说，可扣除的只是这些扣除项下超出已调整过的毛收入2%的部分。因此，低收入纳税人在支付金融咨询费用方面很少有，或者说可以说根本没有税收方面的动机。

政府需要改正这个偏差，并通过有效的补贴，使每个人都可以享受到这种综合的、不受控制、按小时付费的模式建立起来的金融咨询服务。实现这个目标的一个可行途径是建立共同付费安排，比如像已经存在的医疗保险制度和医疗救助制度以及私营的健康保险计划，在这些安排下，从业者可以申请到部分的费用补贴。类似健康保险的方式应该说是非常贴切的：我们都需要在动态的基础上得到医疗和金融的咨询服务，当我们的健康——包括身体上和金融上——遭遇到问题

的时候，如果得不到应有的服务，那么损失最终还是会算到整个社会头上的。补贴的另外一种方式可以是将目前金融咨询的税收鼓励方式从分项扣减改为退税额度管理，使纳税人就算是没有选择列项申报，也可以通过所得税的返还申请来获得这些好处。

咨询师想要取得补贴资格认定必须签署一份声明，表示他或者她不会为了顾客的同一份业务从第三方接受其他的报酬，以保证所提供咨询服务的公正性。我们当然需要那些通过出售金融产品收取佣金的专业人士提供有实际帮助的服务，否则的话，很多有重要意义的产品就无法到达它们预定的目标市场。但是这些专业人士的佣金收入——以及当前以资本利得基础计算的个人所得税扣除数——应该对他们所追求的以佣金为基础的销售模式具有足够的推动力，因而不需要政府再对他们的收费进行补贴。

如果在次贷危机酝酿期间准备购买住房的这些低收入者已经得到了那些值得信赖的金融咨询师一对一、高质量、全方位的金融咨询服务的话，情况又会是怎样的呢？在这种条件下，危机或许根本就不会发生。在住房泡沫的量级和范围或许还没有把它正在发生的真实情况展现出来的时候，大多数金融咨询师至少会有感觉，觉得住房市场的繁荣不会持续得太久。当一个低收入家庭正在经受可调利率按揭贷款或者一份对他们的收入来说显然过于庞大的按揭可能带来的风险威胁的时候，合格的金融咨询师的心里肯定应该非常清楚即将出现的会是什么样的后果。

泡沫破灭后我们看到的另外一个例子，同样说明了这种纯粹出于帮助客户的动机，并且只按所花费时间计费的金融咨询服务的必要性。今天，随着住房价格的下跌，很多需要得到照顾和特别服务的老人打算推迟搬入持续关怀退休社区的时间，因为他们的心里无法接受现在出售住房而产生的价值损失。一般情况下，在搬入持续关怀退休社区前，他们必须处理掉自己的住房，以便支付入住的门槛费，但是



由于考虑到住房价格下跌，因此只能推迟这个对于他们来说非常重要的安排。他们中的很多人可能会因此耽误很多年，因为他们满心期待着以一个更好的价格来处理自己的住房，这种趋势已经通过持续关怀退休社区出现了很高的空置率的情况反映出来了。因此，这些老年房主可能将会有很多年得不到适当的照顾，常常处于孤独和寂寞中。老人们现在真正需要的是一位让人信赖的专注于老年金融服务的顾问、专家，他通过收取小时费的方法设身处地地为老人们做通盘考虑——包括健康需求及税收后果——把所有这些问题直观化。比如说，或许在一个疲软的市场上尽快出手一套住房，表面上看少赚30 000美元，但最后分析出来的结果，综合考虑他们的其他需求后，也许是最正确的选择。

当然，仍然存在一个问题：就算成本大幅度地降了下来，金融咨询又能给他们带来多少好处呢？对于这个问题，我们只有在补贴到位后才有可能知道答案。如果我们通过补贴为新的金融咨询行业提供动力，所期望达到的目的就是它的从业人员将会发掘出新的市场策略、新的咨询渠道，以及将他们的咨询与其他产品和服务捆绑的新模式——这是为吸引那些从来没有进行过咨询的人进入市场来尝试使用个性化的金融咨询服务而设计的策略。

如果政府通过既经济又切实可行地为这种实用而且公平的咨询服务提供补贴来促进这个行业的发展，那么这个行业很可能会进行一些必要的投资，以一个非常宏大的规模来配置新的信息技术。以低成本提供金融咨询服务的原则可能会很自然地成为对这类技术进行选择的标准。那些金融引擎网站会重新被改造，使它们能以引导的方式为顾客提供咨询师精心准备的个人建议，并按这个模式为大多数人提供有效的服务。这些网站可能会得到进一步的发展，以基础模式进入更广泛的领域，让人们可以方便地与其他人（包括各类专家）共同分享金融信息。

如果我们对现行的税收政策进行必要的改革去直接补贴这种收费模式的服务，那么，那些综合性的金融咨询师和金融咨询技术将会把我们带入一个全新的天地，一个我们现在根本无法想象的民主、成熟的新金融时代。

## **新的金融监管**

改正我们现在的信息基础设施建设所存在的不足的第二步，正如伊丽莎白·瓦伦所认为的，应该是由政府设立一个她称之为“金融产品安全委员会”这样的机构，这个机构的模式类似消费者安全委员会。它的首要任务是保护金融消费者，起到调查员和律师的作用，为金融产品的安全提供信息的来源，制定规则以确保这种安全的最终实现。让人觉得不可思议的情况是，在今天的美国，这种对金融产品安全的监管居然没有被列入任何一家金融监管机构的主要职责范围内。

全美高速公路交通安全管理局管理着高速公路和汽车安全及事故统计的相关数据。同样，我们应该找到一个取得授权的政府机构，来收集并管理人们与金融产品之间各种实际情况的数据，包括出现的“事故”，无论这些“事故”是罕见的还是平常的，但一定是实际发生在我们中间的；与此同时，这些政府机构的另一只眼睛应该投向更远的未来，防止同一类事故再次发生。

美国财政部在2008年3月发布的关于金融监管机构调整的“蓝图”中提到了一个业务管理型的监管机构，与瓦伦的金融产品安全委员会的理念有些类似。但这个议案强调，监管机构的职责范围应该按照它们所设定的目标来规范，如果这样的话，消费者保护的功能在这样一个完全独立的监管机构里实际上也就被淡化了。

## **默认选项的金融规划**

革新信息基础设施建设的第三步是建立标准化默认选项的金融规划，当人们出现疏忽，未能在出现问题时及时采取行动的时候，它也能良好地运行。默认选项是当某个人没有能够在可选项里做出主观选择时，它会自己自动做出选择。人们可能会说次贷危机发生的根本原因是很多人根本没注意到那些风险的存在，因为他们不清楚或者不明白市场上正在发生着什么事情，因此掉进了这样或那样的陷阱中。当心不在焉的时候，消费者很容易接受金融合同中预先准备的看上去好像是标准或者是惯例的任何条件。因此，设计一份包括审慎的默认选项的标准合同，应该成为政府和业界现在必须认真考虑的一个问题。大量严肃认真的研究揭示了在做投资决策的时候，人们所认为的标准条款对他们的影响力是多么巨大。

经济学家布瑞吉特·玛德瑞安和她的同事研究了个人在参与雇主资助退休储蓄计划时的选择情况。他们发现，在这一计划中采用雇员自动登记方式极大地提高了参与率，尽管雇员在任何时候都可以很自由地选择放弃这个计划，所需要做的只是简单地提出他选择退出即可。此外，加入这些计划的雇员基本上都接受了计划中默认的缴费费率和分配方案。

我在前面提到，大萧条时住房市场危机中产生出来的一个伟大创新就是把按揭期限从当时很常见的5年延长到15年甚至更长，使借款人能有更长的缓冲期来偿还他们的按揭。这个创新是由住房房主贷款公司于1933年推出的，在这个政府主办的企业不复存在以后，它的这份“遗产”今天依然以长期按揭的形式存在于我们的生活中。为什么在没有政府干预的情况下，私营行业自己不对此做出调整呢？答案很显然，如果得不到早先买家的首肯，在一个已经约定俗成的市场上很难推出新的产品。推出一种新形式的按揭所需要的公众教育成本应该归于公益范畴，如果由一个私营企业来承担，它或许永远也无法全部收回这部分成本，因为由这个付出所带来的收益将由所有选择提供这种新按揭的公司来分享。

要改变这种状况，就需要对常见的合同（比如按揭合同）新标准模版提供权威的解释。如果由那些被大家公认的专家提出，大多数人都会接受这样的标准合同，而且一般情况下，就算没有这样的权威解释，他们也不会自己去对这些问题做出判断。一个新的住房房主贷款公司可以（像我们在下面将要讨论的）通过接受那些具备了新特点的按揭合同作为对按揭放款人的担保，把改进后的按揭合同作为标准合同进行推广。新的住房房主贷款公司制定这类新标准的行动反过来又会推动一系列其他的金融创新，比如针对收入风险和住房价格风险的金融衍生产品市场的开发。

在这次次贷危机发生的过程中，很多按揭借款人非常顺从地接受了别人提供给他们的那些按揭条款，在大多数情况下，他们会很自然地认为这些条款应该经过了专家的审定——尽管是在目前这种没有任何消费者保护措施的前提下。对标准按揭合同进行改进可以极大地推进信息基础设施的建设速度。通过对这个领域进行的改革，会促进政府和商界专家的团结协作，共同研究决定其他类别的金融咨询以及改进后的按揭产品的具体内容，这些改进的新内容最后可以变成为针对大多数人的标准化的常规合同，并推进金融民主化进程，使消费者可以更自由地获取他们需要的信息。当然也应该继续研发推出其他的按揭产品，因为有的借款人肯定不会满足于这些默认选项条款。

另外一种默认选择可以是要要求每一个按揭借款人都必须得到一位民事公证人的帮助。这种公证在很多国家都有，但是美国没有。举个例子说，在德国，民事公证人是一位训练有素的法律专业人士，他在见证双方签字之前要朗读合同并做解释，同时为双方提供法律建议。这种安排对那些在合同订立前没有能够得到经过认证的客观公正的法律建议的人来说，特别具有现实意义。有这样一位由政府指定的人士参与到按揭借款的过程中，肯定会给那些想浑水摸鱼的放款人增加作弊的难度，这些人通常会误导他的客户去找那些与他熟悉的律师，而这些律师不会把借款人可能面临的风险原原本本地告诉借款人。

## 改进金融信息披露方式

加强信息基础设施建设建设的第四步是改进那些与人们的金融及经济生活有关的信息披露方式。很显然，几乎没有人会有这种经济敏感性，去对2001年最终导致安然公司灭亡的那些资产负债表中会计处理以外的信息进行研究性挖掘和交流。同样，也没有人会有这种经济敏感性，去揭示始于2007年的银行对用来抹去其资产负债表上某些风险的结构性投资工具的过度依赖。所有这些公开的报告从来就没有以对广大公众有所帮助的形式出现过。

那些购买了基于次级抵押贷款的住房抵押贷款支持证券的人在这方面的遭遇特别具有代表性，在他们购买债券时所能得到的信息不会超出由评级机构提供给他们评级报告上面的内容，而评级机构发布的信息也只是评定出来的等级——并不包括那些让其他人可以进行审核的支持性数据——以及报告上附带的几句警示性话语。

信息披露在1934年随着美国证券交易委员会的建立取得了巨大的进步。这种披露效率在2000年得到了进一步加强，这一年证券交易委员会发布了《公平披露规则》，要求相关公司的声明必须通过电子方式即时发布，因此，使这些重要信息对所有投资者——无论是大投资者还是小投资者——都同时公开。证券交易委员会还主办了一个网站，提供详细的公开发行的证券以及发行这些证券的公司的相关信息，这个网站还包括对证券交易委员会历史数据的实时访问功能。

尽管证券交易委员会在公众数据共享方面取得了一个非常重要的飞跃，但是，它所提供的也只是关于那些公开发行的证券的一般信息，而且这些信息也仅针对特定类别的证券以及这些证券所处的特定状况。对于非公开发行的证券，比如住宅按揭支撑类的债券，相关的信息就少得可怜。因此，没有人能够对次级抵押贷款的住宅按揭支撑债券的可靠性进行评估，因为置身于评级机构以外的人无法“看到它们内部的情况”，也无法去对这些债券所基于的按揭的可靠性进行实

际的检验。因此，这个舞台是搭建给那些肆无忌惮的按揭贷款发起人的，使他们可以顺利地借钱给那些可能无法履约的低收入者；这个舞台同时也是搭建给那些按揭债券商的，让他们把这些很快就会出问题的按揭出售给那些没有起半点疑心的投资人。

美国证券交易委员会在它的网站上提出了一些不痛不痒的关于扩大信息披露范围的建议，这些是不值一提的。现在应该是政府精心策划、强制要求提高金融活动信息透明度的时候。当然，这样的要求也不应该过分增加那些被要求提交报告的企业披露成本。不过应该说，由于信息技术的持续发展，提供信息的成本在持续下降，因此，在成本不变甚至下降的情况下，信息公布的范围一般来说应该随着时间的推移越来越大。那些被要求披露信息的企业在一般情况下都会对这些新增加的要求产生抵触情绪，但一个设计良好的信息披露制度事实上符合它们的最大利益，因为通过它们不断的信息披露，公众对整个行业的信任度也会随之提高。

另外，应该对美国证券交易委员会网站进行国际化改造，以便它能持续不断地报道全球公开发行和非公开发行的所有证券的相关信息。

在卡斯·桑斯坦发表于2001年的《公开.com》一书中，这位法律学者提出，按照证券交易委员会模式进行信息披露的电子发布要求的范围应该进一步扩展，覆盖更多其他的组织，因为这些组织的活动有可能对我们的信息交流产生方向性的影响。仅仅这样一个对那些可能存在问题的活动进行披露的小小的要求，有时候就足以让这些活动在问题产生的过程中停止。桑斯坦在谈到民主共和的社会在广大范围内披露信息的重要意义时写道：“请放心，这样的一个系统依靠的是限制官方对不同政见及意见进行审查，但它依靠的并不仅仅于此。它还依靠某些公共的领域，在这些领域内，各种各样的发言者有机会接触

到不同类型的公众——也可以接触到特殊的机构和活动，通过这些方式，他们能寻找到提出异议的更多机会。”

在这个通信手段电子化的年代里，对信息披露的强制要求比以前任何时候都更加切实可行。在金融交易的背景下，要求按揭放款人及其他与普通大众有关的金融企业在互联网上公布可能存在问题的全部活动——如果有谁拒不公布，严格来说就是违法——通过这种方式，就可以将其置于公众的严密监视之下。

## **改进金融数据库**

加强信息基础设施建设建设的第五步，是由政府补贴，建立起一个大型的经济数据库，囊括个人及所有公司的全部信息，该数据库的建设必须基于这样的原则——这些信息必须完全可以在开发风险管理合同的过程中使用，与此同时，又要确保个人的隐私得到完全的保护。

我们今天已经看到了很多正在进行开发的关于收入和经济活动信息的大型私人数据库，但这些数据库是不连贯的，而且也很少被用于对公众有益的经济目的。这些数据库中没有任何一个能完整地反映出金融系统的全貌，从里面能看到的只是一些各自独立的信息碎片。因此，我们需要开发出一个能在这些数据库中进行信息交流的协议，以便能把这些完全孤立的信息源连起来形成一个巨大的池子。这个扩张后的数据池的后台应用应该是能给所有人都带来益处的，比如为消费者和住房拥有者提供更多他们自己真实的财务状况的准确信息。这个扩大的信息库应该允许金融网站为它的客户提供定制的、实时的信息——那些真实反映出他们具体经济状况的信息。

建立可供公众使用而且个人隐私又能受到保护的大型个人收入数据库是切实可行的，因为现在个人所得税大部分都通过电子网络申报。在美国，个人可以通过提交4506-T表将自己的纳税情况提供给金

融交易活动的另一方。政府当然还可以更进一步，使受到身份保护的更多信息能被合理广泛地应用于公众利益方面。同时，其他的数据库应该可以与收入数据库相互连接起来。在这种情况下，举个例子说，就使推出收入指数成为可能，这个收入指数应该是实时更新的，具体到个人，并且按照职业、人口统计和健康状况进行分类的一个系列。这些数据可以为我们解决很多问题提供基础的保障，比如用于为个人量身定做风险管理合同（像我们在下文将要提到的生计保险）。这样，风险管理引擎就有可能把我们带进一个精心设计的国民经济的美好愿景中——那种我们目前还没有办法实现的高度透明的状态。这样，一个完全崭新的风险管理的新世界就会展现在我们面前。

改进后的数据库也将使开发出应用于按揭设计过程中的更好的还款能力测算方法成为可能。在信息技术持续进步和金融数据库不断发展的前提下，我们应该看到在帮助实现这个目标的计量经济学方面出现的突破。事实上，在刚刚过去的20年间，基于信用历史记录的还款能力测算的计量经济学方法，也就是著名的FICO评分法，已经成为了借贷行业所采用的主要分析方法。但FICO评分法并不针对一般的经济条件，也不用来作为还款进度调整的依据。同时，支撑FICO评分法的数据库现有的覆盖范围也对它产生了根本性的限制。崭新的适用于经过民主化改造后的金融合同体系的测算方法一定可以开发出来，我们对此充满了信心。

## **新的经济度量单位体系**

很多人发现，要完全搞清楚我们现在的经济体系是一个非常富有挑战性的工作。为了能向他们提供帮助，政府有必要建立起经济度量单位的新体系。次贷危机解决方案的这一部分是真正革命性的步骤，其重要性可以与法国大革命后创立的公制体系相提并论。这样一个体系可以帮助人们在进行经济思考时不再出现人为的错误，而这种人为的错误往往会引发很多经济问题，包括这次次贷危机的根源。



度量的单位可以选为很多常见的经济指标，比如收入、利润和薪资，但最为重要的部分应该是能对通货膨胀进行度量的新的度量单位。

对这个问题我已经连续讲了很多年，我认为我们可以通过采用与通货膨胀指数挂钩的账户单位，比如由智利政府在1967年建立，并且之后被其他拉丁美洲国家政府所效仿的发展单位（UF），来帮助避免通货膨胀造成的思维混乱。

UF其实只是货物和服务市场篮子的每日价格，用等值的智利消费者价格指数来衡量。它由政府挑选出来，作为代替货币的商业账户单位公开发布。智利人已经很普遍地用UF报价，尽管他们实际付款时还是用比索（通过比索对UF汇率换算后支付，汇率可以很容易地查到，特别是通过互联网）。通过给账户单位一个简单的命名，鼓励人们把它作为商务活动中的一个标准值来使用，并且让人们养成按指数形式进行思考的习惯。智利政府已经成功地把智利变成了世界上对通货膨胀反应最为敏感的国家。

相反，全世界范围内的国家所采用的传统货币单位是一种很粗糙的价值度量方法，因为它的购买力在某一段时间内会出现无法预测的变化。用比索和美元度量价值就像用一根某年间不断增长而某年间又不断缩短的尺子来测量长度一样。工程技术人员如果使用一根总在不停变化的量杆来进行设计，他们会觉得设计工作是一件不可能完成的任务——但这种情况对于那些与货币打交道的人来说，确实是一个不得不时刻面对的问题。毋庸置疑的是，他们总是会面临不知所措的状况。在信息高度发达的经济体系中，我们没有任何理由再继续保持交易媒介和价值度量单位目前的这种状况。

我建议给这种通货膨胀指数型的单位一个简单的名字：篮子（baskets），表明它代表的是计算消费者价格指数的货物和服务市场篮子的价值。如果卖方以篮子报价，他们的意思就是要求按真实的货

物及服务所反映的消费者价格指数的条件出售他们的产品——收到的报酬是实际的价值，而不是不稳定的货币。当我们找到一个简单的单词去描述通货膨胀指数的量级的时候，甚至很小的小孩都会学着去将通货膨胀指数化，其实他要做的仅仅是使用这个单词而已。

政府应该用“篮子”而不是美元来编写税则，一方面是对税务系统的全面指数化，同时也是强制人们学习新的单位。信用卡销售终端和其他电子支付系统也可以重新编程，来接受“篮子”进行支付。

如果人们之前能早一点习惯于这种指数型度量单位的话，最近的住房市场虚假繁荣可能也就不会发生了。在最近几十年间，影响住房市场的最主要因素之一就是有一部分民众没有搞清楚通货膨胀的情况。世界主要国家的政府差不多连续一个世纪以来都在发布消费者价格指数，而且身处某一阶层的公众普遍都会使用这些指数。但对通货膨胀的无知仍然占据了很大的市场，并且最终导致了巨大的失误。

20世纪80年代早期，美国的通货膨胀非常厉害，人们基本上不可能用普通的按揭购买住房，因为扣除通货膨胀后的利率通常接近每年20%，而且购买一套价值接近3年总收入的住房将使人们把接近60%的收入用来还按揭。由于通货膨胀在继续，按揭还款的真实还款额最终可能会大幅度地下降，但是这种情况也有可能很多年都不会出现。在那些年里，很少有人付得起前期的贷款，因此买房成为了一件可望而不可即的事。住房价格最终降下来了，尽管下降的幅度受到了由于高利率造成的供应偏紧所产生的限制：住房投资在美国国内生产总值中所占的份额下降到了3.2%，这是第二次世界大战以来的最小数字。实际上，人们只需采用通货膨胀指数型的按揭就可以避免出现这种问题，但公众似乎并不能理解这个概念。然而，其实只要他们能习惯于用“篮子”来进行交易，就会十分自然地这样去做了。

20世纪80年代初的股票市场市值很低，所对应的实际情况就是名义利率很高，尽管实际（经过通货膨胀修正后的）利率并不高。这个

发现被称为莫迪里阿尼－科恩效应，这个名称来源于经济学家弗兰科·莫迪里阿尼和理查德·科恩，他们在20世纪70年代首次在其文章中描述了这种情况。（已故的弗兰科·莫迪里阿尼是价格水平浮动按揭的发明人，同时也是我的导师及一部分文章的合作者，也是本书灵感的源泉。）

随着20世纪80年代初通货膨胀的好转，股票市场开始牛气冲天。如果账户单位采用的是“篮子”的话，股票市场的这次过激行动应该也可以避免，因为采用“篮子”，可以使公众不被所谓的货币假象所迷惑，但事实上，他们往往会趋向于用货币的名义价值而不是实际价值去思考。

20世纪90年代发端的住房市场繁荣同样也是部分公众不能正确理解通货膨胀所导致的。我们能记得很多年前的住房价格，是因为购买住房在我们所有的购买行为中占据了非常重要的位置，因此，过去的住房价格与现在的住房价格之间的差异给我们的印象，就远远超过当时一块面包的价格与现在的价格存在的差异所留给我们的印象。我们形成了一个错误的观念，感觉住房投资对我们来说是相当了不起的一件大事，然而，它们价值的增长，事实上如果用“篮子”来衡量（尽管已经历经了几十年），一般来说几乎是零——至少到最近的住房市场繁荣期间。

2008年，美国房地产经纪人协会（简称NAR）开展了一次耗资4000万美元的公益宣传运动，名为“住房的价值”。该项运动计划在广播、电视，以及平面媒体、广告牌和公共汽车车体投放数以千计的宣传广告。这些广告不断重复的口号是“住房价值平均每10年翻一番”。该协会声称，这个说法来自于他们过去30年的数据。事实上，这样的情况根本不足为奇，因为在过去的30年间，消费者价格指数几乎翻了两番，而我们目前正处于引起实际价值翻一番的住房价格泡沫的末期，这就充分说明，过去的30年中翻番的都是名义价值。使用这

些数据来说明住房投资如此赚钱是一种高度欺骗性的行为，但美国房地产经纪协会现在还可以自圆其说，因为公众对通货膨胀的了解还很有限。

事实上，20世纪30年代的大萧条也与通货膨胀有着密切的联系。正如本·伯南克在他2000年出版的《大萧条》中指出的，现在大家都很清楚，在20世纪30年代，当价格总体出现下降的时候，实际的薪资（扣除通货膨胀因素后的薪资）水平很高，可以说，受到失业率冲击越严重的国家，实际的薪资水平就越高。

一个关于大萧条的简单事例是，雇主不能降低工人的名义工资来保持真实的工资水平不变，因为降低名义工资可能会让雇员和工会产生误解，把这种行为当成是对他们的严重侮辱，并因此引发抗争。结果是，如果让所有的劳动力就业，这些企业就不可能保持盈利：他们收入下降的速度超过成本下降的速度。假如当时人们对通货膨胀的认识能比较到位，大萧条的后果肯定就不会像当时实际产生的情况那么严重。

如果人们在大萧条前就习惯于用“篮子”报价，雇员们就有可能看到他们真实的工资在上涨，就有可能不会对名义工资的下降产生恼怒，而雇主也就没有必要关闭工厂来保持赢利了。

如果从1890年起我们就一直习惯于用“篮子”来对住房进行报价，那么，人们会发现住房价格在过去的100年间没有发生过任何根本性的变化（一直到最近的泡沫产生），也就不会有那种在21世纪早期产生的认为住房价格总在不停上涨的想法。

建立一套新的经济度量单位系统还会产生其他无数有益的效果。在本书前面所讨论过的主题中，应该引起我们注意的是，我们放任通货膨胀（因为同时收入也增长了）去侵蚀一些重要的金融保护措施，然而这些措施是我们在过去数年金融启蒙过程中产生的重要成果。

当联邦存款保险公司（简称FDIC）在1934年创立的时候，规定的承保限额是5 000美元——这是当时一个人12年的个人收入。针对通货膨胀和收入增加的现实，这个限制最近一次提高是在1980年，限额提高到了10万美元，但10万美元还不到现在一个人3年的个人收入。

证券投资者保护公司（简称SIPC）是在经纪公司倒闭时为消费者提供保护的企业，它的保额限制最近一次提高也是在1980年。到现在为止，它的保额限制仍然是现金账户10万美元，证券账户50万美元——数字听起来很大，但实际上并不够，在大的危机出现的时候，根本不足以应付经纪公司客户数额巨大的恐慌性提款。

对这些重要保护措施的侵蚀已经威胁到了我们经济体系自我修复系统的安全。用名义货币价值来规定FDIC和SIPC的承保限额已经被证明是一个严重的设计错误，而用“篮子”来规定限额的话会好一些——如果能用另外一个与名义个人收入而不是通货膨胀挂钩的账户单位指数的话，效果还会更好。

尽管美国国会时不时会表现出对经济体系进行适当修补的某些倾向，2005年还通过了《联邦存款保险改革法》，但由于这些措施缺乏连续性，整个体系仍然处于严重的危险之中。只有通过采用一套新的经济度量体系——目的是为了正确地说明一个数量级变得像说一句话这样简单明了——我们才有可能在以后避免再犯诸如此类的错误。

把上述6个步骤组合在一起，可以充分释放出那些有效信息的力量，并且帮助我们从一开始就防止类似目前正在经历的这次次贷危机的产生。一旦我们对发展更好的信息基础设施建设提供了经济及政府的激励措施，一旦这个基础设施能保持运营若干年，这个体系就会被主流社会及企业界所接受，从而把我们推上探索未知信息世界的征程。我们将见证利益驱动型的全新信息提供模式的出现，包括那些以计算机为基础的，也包括那些以人工服务为基础的，而所有这一切都

将相互交融，共同促进改进后的个人和企业金融决策体系进一步发展。

## 真正关注风险的新市场

回顾过去一个世纪的金融发展史，我们会发现市场范围一直在扩大。随着时间的推移，人们交易所面对的风险种类也越来越多，同时也有越来越多的机会让人们去对冲这些风险。现在，我们应该鼓励以一种真正民主化的方式进一步推进市场的发展，换句话说，也就是让市场可以完全覆盖到那些与个人有着根本性关系的具体的风险上。

### 面向房地产行业的新市场

我们现在最迫切的需求是为房地产提供一个能让它真正流动起来的市场，特别对那些住房是最大单一资产，而且只拥有一处房产的家庭来说，显得尤为迫切。

我和我的同事已经共同奋斗了20年，一起致力于为房地产市场探索创新型的市场。我们所取得的比较大的突破是芝加哥商品交易所采用我和卡尔·凯斯共同开发的标准普尔/凯斯－席勒住房价格指数建立单一住房家庭住房价格期货市场。这样的市场——由山姆·玛苏奇通过我们共同成立的宏观市场公司充当先锋——于2006年5月启动，为10个美国城市提供综合美国指数（composite U.S. index），是当今世界上仅有的真正的住房价格期货市场。遗憾的是目前这样的市场的流动性仍然很低，还处于拼命想站稳脚跟的阶段，但我对它们充满了信心。

这样的衍生品市场具备抑制房地产泡沫的潜力。没有这些市场的话，投资者无法对房地产做空。那些警觉的投资人在看到泡沫正在成

长时没有办法在市场上表达他们的看法，除非他们确实退出市场，也就是将他们的住房出手，这当然是非常过激也非常困难的一步。

如果我们在不同的城市都建立起了这样一个流动性很好的房地产期货市场，那么，世界上所有持怀疑态度的人无论在什么地方都可以通过其在交易市场上的行动来为一个城市的泡沫减压，因为这样的泡沫对于看空的人来说意味着一个盈利的机会。如果市场被广泛关注，那么住房建筑商就会看到市场反映出来的住房价格在下降，这样他们就会收缩自己的投资规模，因此就会避免我们刚刚在美国见证的这种建筑泛滥的情况。如果住房建筑商能采用更明智的手段，在他们的住房还在建设期间就对这些住房进行保值，那么在他们开工建设前就能察觉到损失的产生。

在过去的几年间，也有人表达过对这种情况的担心，他们认为衍生市场的建立或许有可能增加而不是降低价格的波动幅度。然而，金融经济学家斯图尔特·梅休在一篇学术文章中说：“经验证据表明，衍生产品的引入不会导致基础市场的不稳定——要么没有什么实质性的影响，要么对价格波动有抑制作用——而且，衍生产品的导入更好地改进了市场的流动性，同时也增加了市场的信息流量。”

我们对为住房提供服务的市场中的这些问题之间的相关性目前还不完全清楚，住房类的不动产市场的流动性特别差，它的价格对于大众来说还是太显而易见。然而，我认为，这些情况让我们更有理由相信，把期货概念和专业人士引入到住房市场中将会改进它的功能。事实上，正如经济学家米尔顿·弗里德曼在半个世纪前指出的，贸易专业人士会帮助稳定市场，至少在某种程度上是这样，因为如果他们扰乱市场（高买低卖）的话，他们就是在跟钱过不去——这样的策略不可能让他们的业务持续下去。

芝加哥商品交易所住房期货市场的价格从2006年5月开市伊始就预示着美国住房价格已经处于跌势。如果这些市场能出现得更早一点、

成熟得更早一点，至少不晚于2006年，而且如果它们能被广泛地认识并被深入地了解的话，那么建筑市场的泡沫——这些泡沫产生的后果今天仍然历历在目——可能根本就不会出现，因为建筑商们可能早就看到了由这些市场产生的以权威形式发布的各种价格预告。

芝加哥商品交易所住房期货市场需要那些全身心投入而且实力雄厚的市场参与者进入市场，并能充满自信地对那些大型机构的订单进行报价交易。但遗憾的是，很多潜在的投资人在看到市场缺乏流动性，并因此导致在这些市场里的交易成本偏高的现实后，都很无奈地退出了市场。

这些衣着考究的资本家虽然愿意一掷千金地进入抵押债券市场，支持那些破产的按揭发起人，但一直到现在，他们似乎也没有表现出任何意愿来帮助如此重要的一个新的衍生资产市场的开发。其实，这个市场所需的资金投入相对不大，而且它极有可能把现有的金融体制转变成更完善的方式。

其他宏观房地产风险市场种类还包括期权、掉期、远期合约以及相关的衍生工具。芝加哥商品交易所在2006年，基于标准普尔/凯斯－席勒住房价格指数，启动了一个单一住房家庭住房价格期权市场，同时还启动了单一住房家庭住房价格期货的交易。

一旦将这些潜在的机会变成现实，这些房地产市场的总体规模会比现在全世界所有的股票市场的总和还要大。事实上，根据美国联邦储备局的估计，美国家庭在美国拥有的不动产的市场价值超出美国国内公司全部市值的30%（2007年第四季度的统计数据）。因此，如果说住房类地产价格的衍生产品市场的成长将使整个股票市场的重要性降低，我们相信这样的说法绝非耸人听闻。

商业地产也开始看到了类似的市场发展趋势。美国商业地产国内生产总值平减指数（IPD指数）已经让我们看到了接近150亿英镑的



名义市值的源头。这个金额与美国整个商业地产的总市值相比仍然非常小，但这确实是一个非常令人振奋的开始。

## 其他的新市场

我在这本书里之所以如此强调地产市场，是因为地产市场对经济波动的影响力非常大，特别在当前这场危机中更是如此。但在我们迈向一个更完善、更成熟的金融环境的时候，我们也需要而且也能够建立起很多其他类型的新市场。

这些市场中，最优先考虑的应该是对收入——包括个人收入、职业收入、地区收入和国民收入的长期债权。这些市场之所以重要，是因为它们所代表的是生计风险，这是每个人都必须面对的最重要的风险。针对职业收入市场——比如期货、远期合约、掉期和交易所交易票据——最终将使人们对他们一生中的收入风险进行对冲成为可能，而且这些市场对联动型按揭的发行人具有根本性的重要意义，这一点我们将在下文进行深入讨论。

国民收入，有时候用GDP衡量，也应该拥有自己的市场。这样的市场可能事实上已经存在了，因为GDP的统计已经相当成熟，而且世界上每个国家的数据都早已经是现成的了。

主权政府应该将国债的发行与该国的GDP数字挂钩。最简单的方式是发行永续债券，按GDP的比例派发红利。我在约克大学的同事马克·康母斯特拉一直与我共同致力于在加拿大推广这种类型的政府债券，他建议将这种债券称作“兆券”（trills），因为基本上是每份债券派发一年GDP值的1兆分之一。这就意味着每一份加拿大兆券按现值派发的年红利大约是1.50加元，一份美国兆券按现值派发的年红利大约是15.00美元。

在不同的时期，这些红利有可能多一些，也有可能少一些，主要是参照该国经济的水平。目前一份加拿大兆券的市场价格应该是30加元左右，一份美国兆券的市场价格应该是300美元左右。兆券的价格会随着对该国经济未来展望的各种信息出现波动，就像公司的股票价格会随着对该公司未来展望的各种信息出现波动一样。这样看起来，应该会有对这些兆券有兴趣的、活跃而且很有意思的市场存在。

尤为重要的是，兆券市场的存在使得各个国家对冲该国国民经济的风险成为可能。如果美国政府在过去这些年发行了兆券，而且国债的组成主要是兆券的话，那么美国政府现在就会发现它释放出了充足的资源，让政府快速应对那些突然出现的紧急状况，比如次贷危机。当经济减速的时候，政府会发现国债的利息压力非常有效地减低到了远低于他们预期的水平。这样的话，他们就会有更多的资源来应对危机。这是一个应用于全国范围的根本性的危机管理方式。

当然，现在还没有任何政府发行兆券，但是已经有一些与GDP挂钩的债券，比较有名的是阿根廷在2005年发行的GDP权证。同时也开始出现了一些利息与GDP挂钩的债券，例如联合国开发计划署、国际货币基金组织以及世界银行发行的一些债券。

## 新的零售型风险管理机构

上面所提到的新市场的主要目的是为风险管理建立一个总体的基础架构，但普通群众不大可能有能力使用这些复杂的风险管理技术。比如说，大多数人可能从来都不会去期货市场交易，他们不习惯这样的做事方式，而且这种交易方式对那些没有专业知识的人来说也是一个巨大的挑战。因此，我们需要为他们设计一些简单的零售产品，以便能使他们参与到这些新的市场活动中，我们也能通过这种方式达到金融民主化的目的。

这种情况从风险管理的角度来说与向单独的农场主提供粮食自动仓库的情况类似。农场主一般不会对在期货市场上对冲他们的风险，这种方式通常情况下对于单个的农场主来说太困难了。但是农场主可以签一份合同，把他的粮食交到当地的粮食仓库，这份合同将农场主的市场风险部分地转到了仓库的所有人头上——他可以在期货市场上对冲掉这些风险。

这个简单的概念为个人应对大大增加的风险管理难度树立起了一个典范。零售组织可以把上面讲到的风险市场带来的好处输送给每一个人。

## **联动型按揭**

一种我称之为联动型按揭的新型住房按揭应该设定这样的条款，规定按揭的条件将按照借款人支付能力的变化和住房市场环境的变化持续（实际操作中可以是按每个月）进行调整。按揭合同应该规定有一个每月自动进行检测调整的条款——方式跟我们现在在按揭除清期间一次性提供给产生拖欠的住房所有人的一样。联动型按揭可以由私营部门推出，政府在此间所起的作用只是制定适当的规则并提供必要的基础设施。

早前出现过的一种持续调整型按揭可以追溯到20世纪70年代晚期至20世纪80年代早期的高通胀、高利率时期。这种价格水平调整按揭允许按月份变动还款额，它所参照的只是一个简单的经济指标：按消费者价格指数计算的通货膨胀率的变化。今天，我们可以做得比它更好，因为消费者价格指数只是在按揭除清过程中纳入考虑的众多因素之一。

这种联动型按揭代表着金融民主化的方向，因为这类按揭带来的好处很自然地会惠及到每一个人。这种调整将会是系统性的，而且是自动的，以便它们能够涵盖整个可以合理地从中受益的范围——而不

只是那些头脑灵光，会去找一个好的律师，能主动主张自己的权利或者是由于极度贫困而引起人们同情的那些人。

我曾在上一章中提出，救市措施是次贷危机解决方案中必要的组成部分，它可以避免那种可能摧毁公众信心、导致系统失灵的经济危机的产生。遗憾的是，这种类型的救市会有副作用：它们在鼓励道德冒险。人们会开始不考虑自己行为的后果，因为他们相信无论如何他们都能得到救市措施的帮助。但这种副作用只会在救市措施不是预先安排，也并非由所有参与方自由做出选择的前提下才会发生。如果人们是在事前通过一个自由的市场为救市所做出的这些安排来支付费用的话，那么这就不再是救市了，而变成了一份由保险单所提供的保障。如果它也鼓励了不受欢迎的行为，那么不受欢迎的行为至少已经支付过成本。

联动型按揭是提供“负责任”的救市的一种方式。这些预先建立起来的金融规划可以在紧急状态下根据实际情况发挥破产法院所应该发挥的功能：他们将贷款的条件调整到借款人有能力赔付的水平内。与破产程序不同的是，联动型按揭的运作基础针对的是一种实时的情况，当收入出现波动的时候采取相应的措施，不让问题的严重性上升到危机的程度。我们应该把它们所采取的这些措施看成是常规的审查和预防性的关注，以避免突然跌入紧急状态中。另外，借款人也不用承受破产所带来的尴尬和名誉损失。事实上，联动型按揭在可能触发破产申请的情况下仍然能继续运行，债权人也能继续收取到还款，收到的还款金额虽然可能会减少，但至少能保证是不间断的。

当然，联动型按揭存在着一种潜在的道德风险：借款人可能有意丢掉工作，以便能启动降低还款额的程序，更坏的情况是他有可能在灰色经济领域工作，根本不申报任何收入。其实，道德风险是所有风险管理都无法回避的问题，包括保险、破产等情况，而风险管理机构可以通过充分的实际调查，把这种风险降低到可以控制的范围内。对

于收入丧失情况可能存在的道德风险，如果能由风险管理机构有意识地提前对这种可能出现的情况做好预案，而不是让它变成实施特别救市措施的一个组成部分的话，我们相信对这种道德风险的处置应该可以变得非常有效。

在联动型按揭中，对于减少道德风险设计的一种方式是在贷款合同中规定一个还款公式，这个公式不仅考虑借款人的实际收入情况，也考虑处于同一地区、同一职业类别中的其他人的挣钱能力。在这个计划下，借款人有可能有意减少自己的收入，但这不会对还款计划产生太大的影响，因为这不可能影响到其他指标。这种所谓的职业收入指数如果设计得合理的话，完全可以达到这样一种理想状态：在使借款条款的规定真正基于还款能力的前提下，道德风险又可以被控制在最小的范围内。

毋庸置疑，联动型按揭应该成为处理次贷危机的所有计划中的中流砥柱。按揭调整现在正被如此热闹地倡导着，而且被这么多具有很强政治影响力的人同时提倡，这样一个事实，意味着这种调整将极有可能被制度化、规范化，而且还将会是永久性的。联动型按揭想要做到的就是这一点。

## **住房产权保险**

住房价值的下降会使住房所有人的财产价值降低，使住房所有人很难甚至不可能通过新的抵押按揭来进行再融资。住房所有人会悲哀地认为，他不可能再有机会搬到另外的住所，就算这样一次搬迁能让他享受到一份更好的工作带来的好处。按揭也由于断供最终无奈地走到尽头，特别是当住房所有人可以简单地从这样一种漫无头绪的糟糕境遇中一走了之的时候，他很可能就会因为仅仅是觉得不值得而决定不再努力对一项按揭继续供款。

住房产权保险合同可以按都市区的住房市场价值进行投保，帮助住房所有人防范他们的住房在当地市场上出现贬值。住房产权保险可以消除目前绝大多数住房所有人所面临的高度杠杆化的风险。这样的合同可以在帮助很多住房所有人避免陷入负资产窘境，并因而保住他们的住房方面做很多的事情。通过这样的安排，还可以催生出各种各样有利于住房所有人的社会方面和心理方面的好处，鼓励他们维护好邻里关系，促进民众对社会事务的参与热情。

在火灾保险的实践中，总是存着这样的道德风险问题——住房所有人可能会故意烧毁住房以便得到保险公司的赔付。如果我们在住房产权保险中直接按照住房的销售价格投保，那么我们也将会面临同样的道德风险：住房所有人对住房进行恰当的维护以及在出售时尽量要求高价的动机将不复存在，这样会导致可能出现的所有损失都将由保险公司来承担。但是如果我们所设计的保单是按住房所处城市的住房平均值投保，而不是按单独的每幢住房的价值投保，那么道德风险就失去了存在的空间。

住房产权保险还可以消除恐慌性抛售情况的出现。当住房所有人看到价格开始下跌，并决定“逃生”的时候，这种恐慌性抛售情况有时候会有损住房本身的价值。如果过去有这种类型的保险合同存在，我们就有可能见不到那些大城市在出现种族更替期间发生住房价值崩溃的情形，而且这种更替也应该会来得比较平稳和温和，而不会像在现实中确实发生过的“白人逃离”——在这种情况下，由于到处都在谈论着有关种族的事，市场产生了恐慌。如果有这种类型的保险合同，那么在底特律、费城和华盛顿等大城市出现的经济崩溃的情况应该可以被降到最低，甚至有可能会完全避免。因为如果城市中心能保持活力，相关的产业就会倾向于保留下来继续营业，这又进一步支持了城市的活力。

住房产权保险以前曾经做过尝试。首次尝试于1977年出现在伊利诺伊州的奥克帕克。最近的一次重要尝试，由我的耶鲁大学同事在邻里再投资公司（Neighborhood Reinvestment Corporation）的帮助下，在纽约州的锡拉丘兹市进行。这个示范性项目的创新性表现在项目基于锡拉丘兹市的城市住房价格指数，而不是基于具体住房的销售价格，并因而控制了道德风险。

住房产权保险的概念从本质上看还可以通过期权的方式来实现。现在在芝加哥商品交易所交易的单一住房家庭住房价格期权提供了一个很清楚的交易渠道，住房所有人可以利用它保护自己免受未来住房价格下跌所带来的困扰。任何人都可以在芝加哥商品交易所买入一份住房价格的看跌期权，如果住房价格下跌到低于期权的行权价时，这份期权合约所起的作用就如同用来赔付的保险单一样。

今天，所有的普通民众都可以利用这些看跌期权，但实际的情况是很少有人使用这些期权，更不用说深刻理解隐藏在它们背后的风险分担的经济学原理。期权被大多数公众看成是为那些莽撞的投资人提供的金融骗局，然而，事实上它们是用来分散或消除风险的有效工具。充满探索精神的人总是对零售市场上出现的新投资工具持欢迎态度，而合理实施的教育项目会让普通民众最终理解房地产期权的概念，并从中受益。

## **生计保险**

今天，当一个中年人失去一份稳定的工作时（原因可能是行业不景气，或者是对他所能提供的服务的需求出现了下降），这样产生的直接后果就是失去收入，而失去收入可能会演变成他一生中一个毁灭性的大灾难。路易斯·乌奇特勒在他2007年出版的《没有保障的美国人：失业及其后果》一书中披露，遭受这个不幸打击的人真的很悲惨，但他们大多都由于感觉到羞愧和不知所措，而选择默默地忍受。

生计保险可能是解决失业导致的这些问题所迈出的重要一步。它可以建立在另一个已经存在的风险管理机制——伤残保险的基础上，但它应该将覆盖范围扩展到医疗风险以外，同时也把生计方面可能面临的经济风险纳入保险范围。当伤残保险被开发出来的时候，我们当时的信息技术所处的水平可以保证我们能够完整地测算出医疗风险对一个人赚取一份收入能力的影响程度，并进行相应的验证，使保险条款可以很好地覆盖这些风险。但当时的伤残保险提供者没有可靠的测算经济影响力对个人生计的影响程度。今天，我们拥有了基于大型数据库的完善的各类经济指数，而且毫无疑问，这些指数能够在以后得到更进一步的完善。

为了避免道德风险，生计保险当然不会简单地保证被保险人的生活能维持在一个具体的收入水平上，避免出现这个人辞掉工作完全靠保险赔付款生活的情况。但是，与联动型按揭和住房产权保险平行，生计保险应该可以按“赔付只是部分地与被保险人自己的收入有关”的原则进行设计，当然对于那些影响收入的具体风险，应该可以得到切实的保障。与某个人所从事的行业相适应的职业收入指数可以用来规定纳入保险范围的损失额度，这样的方式不会引发道德风险。如果存在针对职业收入风险的市场，那么私营的保险公司就可以通过开发这样的险种来对冲风险。

已有的伤残保险行业为建立生计保险提供了现成的基础架构。

生计保险可以被看成是失业保险这个20世纪提出的概念具体化的现代版本。当失业保险于1911年在英国被提出，并由戴维·洛伊德·乔治领导实施的时候，伦敦的《泰晤士报》这样写道：“对于失业问题的解决方法还没有先例可循。这真是‘在黑暗里的奋勇一跳’，确实是一项不同寻常的大胆计划。”这次失业保险的赌博的结果是我们赚大了。随着时间的推移，失业保险已经被复制到了全世界，那些提供这种保险的机构已经非常有把握把道德风险置于自己的控制之下。



然而，以失业保险目前的形式看，它还从来没有认真考虑过为长期的生计问题提供有效的保障。

考虑到现在如此发达的信息技术和更加完善的金融理论体系，我们应该有能力推进这项由失业保险的制定者首先开创的工作。由于实施起来情况如此复杂，因此，生计保险可能应该由私营保险公司提供，政府通过法规、基础设施建设以及相关的公共产品（比如教育）的提供来给予协助。

次贷危机在时间上正好与很多人生活中出现的转折契合，他们面临的这个转折就算不是永久性的失业，也永久性地失去了在余生中赚取大钱的能力。生计保险可以针对减轻这种影响的后果做很多事。这一次危机——当千万人在他们的生活中经受着收入显著减少、境遇突然转换的折磨时——是让我们认真考虑生计保险的最理想的时机。

## 风险管理与风险规避

采用类似上面讨论过的这些风险管理的策略会产生根本性的影响。当我们还没有这些策略的时候，我们趋向于以显然并非最优化的方法来规避风险。风险规避行为会产生令人想象不到的后果，比如说会影响到我们对工作和生活地点的选择。由于没有能力对选择地理位置所带来的风险进行保险，我们可能会趋向于选择那些我们认为安全、一定不会失去的工作。我们会选择到大都市地区工作，因为那里有门类广泛的工作机会可供我们选择，而不像远离城市中心的小乡村或者小镇，那里的工作市场提供的工作门类一般都很少。因此，我们在选择职业的时候都会更趋向于传统，而且对大城市及其郊区的依赖远远超出了我们自己所能想象的程度。

风险规避行为同时也影响着城市、地区甚至是国家政府的行为。出于对新的经济开发活动不确定性的担心，政府一般都会很典型地选择一种安全的、循规蹈矩的方式。当他们应该把自己的城市培育成某种具体的新兴技术或者产业的充满活力的中心时，他们却总是选择模仿别人现成的成功模式。

所有这些规避风险的行为所产生的结果就是，在我们的社会里滋生了一种压抑的单调，以及冒险精神的缺失。人们当然应该避免那些根本性的风险——那些无法控制的社会风险，但不应该规避那些可以进行保险的风险，这些风险可以被分散到大规模的人群头上，并因此而稀释。然而人们更多地倾向于两种风险都规避，这就大大浪费了我们社会的创造力和活力。

## 长期解决方案的组合效果

请设想一下这样的社会是什么景象：装备有高度完善的信息基础设施，各种信息可以无障碍地到达每一位成员那里；为住房所有人和商业地产商提供的衍生产品市场；精心开发的零售产品，比如联动型按揭、住房产权保险和生计保险，这些产品有力地支持了个人对风险的管理能力；默认选择条款很自然地引导人们精明地使用风险管理工具。

房主自住房市场那种令人难以置信的定价情况将会寿终正寝，那种反映出投机思维的住房价格的过度震荡将会由于国际投资者的市场行为得到调整，因此，基本上可以避免出现此次次贷危机中出现的崩溃现象。导致房地产投资业务中出现震荡起伏的一个主要问题源将会被合理地理性化。

我们的社会有理由期待一个更稳定的市场环境，而且，我们也应该拥有一个更理性的经济体系。

## 结语

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要想取得长期经济的成功，关键是对市场信心的正确把握，而泡沫的出现则是由于把市场信心放错了地方。

本书中提出的次贷危机解决方案中长期和短期的各种不同方式，都是设计出来帮助我们把市场信心放到正确位置上的，使这些市场及其相关的风险管理机制能按照最理想的状态运行，并让我们所有人都能从中受益。

在这里提出来的这些次贷危机解决方案中的短期部分是最急迫的。对这些创伤的痛苦记忆将会严重损害我们过去多年来形成的对已经建立的这些市场的信心和信任，这种情形与大萧条时期如出一辙。时间在一天天地过去，美国社会组织所遭受到的破坏也越来越严重。

次贷危机解决方案中的长期部分对增强社会的稳定性也起着根本性的作用。我们必须抓住现在所面临的难得的机遇进行必要的变革，让每一个人都可以参与到对美好未来的共同建设中。经济进步的过程远远没有结束——我们正在从目前的这场危机中学习，我们现在将要做出的这些变革会把我们带进一个永远追求进步的美好世界里。

我在这里提出的长期解决方案可能会由于大大出乎一些人的意料而让他们觉得难以接受。审视这里提出的进一步发展金融市场和金融体制，并把它们彻底解放出来，以便更好地放手工作的建议，会让有些人觉得提出这样的解决方案似乎是在引导我们走向一个完全错误的方向。有这么一些人总是觉得对次贷危机的解决应该在更多的救市行动、更多的监管、更多的规则、更多的惩罚和监禁判决中找到答案。

我一直认为，从短期来看，救市行动确实在我们对危机所采取的应对行动中起到了一定作用。不管在任何时候，当人们发现经济体系没能对公众提供合理保障的时候，救市行动都是我们相互间人文关怀的一种体现。

我们相互间的这种信任感本身就是人类以前在采取相互救助行动的过程中所形成的。想想马歇尔计划，感觉上就是美国送给第二次世界大战后欧洲那些饱受战火蹂躏的国家的一份大礼，完全是凯恩斯一个世纪前在他的《和平的经济后果》一书中所提出的原则的具体体现。这是人类对欧洲在战后身处极度糟糕的险境所做出的一个自然反应。在阿莫斯·欧兹2005年出版的《怎样治疗极端狂热症》一书中，这位小说家和社会批评家声称：“是马歇尔计划赢得了冷战的胜利，而不是激光武器和星球大战计划，尽管这个胜利的取得花费了我们30年或者是40年的时间才得以实现。不是罗纳德·里根，而是哈里·杜鲁门采用马歇尔计划最终赢得了冷战的胜利。”

我们现在所期待的，只是在目前这场危机中能再次看到那些正在遭受不公正对待的人能够得到同样的慷慨。

但这种把特别救市行为作为我们保护人类未来经济及社会福利的机制不可能走得太远。作为今天救市基础的同样的道德假设，要求我们立即着手建立起系统的程序，对未来类似的危机提前做出反应。

我们对这些遭遇不幸的人的大度必须制度化，这样做从根本上说意味着我们必须建立起风险管理的合同机制。这种做法是我们这个社会两百多年来形成的一种趋势的自然延伸，这种趋势就是用以保险为基础的机制来代替现有的大部分慈善机制。

当人们收到的钱从一种慈善救助变成了一份保险单的赔付款时，人们的感激之情是不是会减少？也许是的，但感恩不是我们在这里要追求的目标。越接近感恩的本源，人们就越能感觉得到一种羞愧和个

人的失败。如果我们拥有这样的机制，在这种机制下，所有人都能得到公平和富有同情心的对待，那么这样的氛围将极大地增强我们社会的稳定，并让我们万众一心，尽管这种机制在发挥这样的作用时，并不需要任何人产生自发的冲动去慷慨解囊。

现在对怎样处理次贷危机的后果依然存在着很大的争议。对那些作恶者联手所做的坏事进行一番指责是一件再自然不过的事情，但是，这种做法可能存在的风险是，对指责的过分热衷可能会使我们无法找到真正的解决方案的方向。

当然，社会上确实一直存在着作恶者。每一次金融泡沫都会为我们中间的那些亡命之徒创造出机会，这些机会让他们将自己的不道德行为隐身在集体的纱幔后面，这使得他们在真相曝光之后更加令人不齿。在次贷危机期间，他们中的一些人特别让人难以接受，因为他们出于自身利益的考虑，总是鼓吹住房市场不存在任何问题的论调，每个月都在不断重复地说下个月就将见底之类的话。因此，当事件终于有了结果之后，大家不会对这类人产生任何怜悯之心。

看到那些像庞然大物一样的投资银行和经纪交易商的主要领导人一个接一个地被炒掉，一点儿都不会让人觉得惊奇。仅仅为了让人们有希望看到一个新的开始，作为一种表态，请以前的掌舵人离开是一种通常的做法。但我们不应该让我们对惩罚的要求超出这个限度，使制度本身以及相关的原则都一并受到惩罚。

1929年股票市场崩溃的影响以及因此引发的萧条在欧洲引起了强烈的愤怒情绪，产生了惩罚金融市场的强烈要求。这是欧洲历史上一个重大的转折点，因为它所引发的是欧洲大陆金融体系更进一步的萧条。相反，在20世纪30年代的美国，对1929年金融危机所做出的反应是尽力去巩固已有的金融体系，而不是去惩罚它。欧洲对发挥稳定机制的金融市场敌意的错误一直到了半个世纪之后才得到了排解和完全清醒的认识，我们不希望今天再重复那样的错误。

另外一个与此相关并且平行发展的情况使得这个局面变得更为复杂：数十年来，美国一直存在着不断上升的经济不平等情况，这种情况在世界上大多数发达国家也都存在。在过去的每一年中，持续恶化的不平等进一步降低了大多数公众对那些在金融市场上赚取了巨额财富的人的接受程度。

但这不应该成为我们对创造出这些财富的技术进行惩罚的理由——因为金融确实是一种非常惊人的技术，而且它可以使我们每个人变得更富裕，甚至还可以用来减少经济的不平等状况。在当今世界上，大量的经济不平等的产生是由于一直未能对风险进行更好的管理，而金融技术是非常适合用来处理这些风险的手段。

不平等情况越来越严重的部分原因是由于公司董事会要留住高级经理人才，但是我们无法把这种情况当成是导致经济不平等上升的主要原因，而且我们当然也不认为对金融界的精英们发动薪资战争是解决这个问题的最好方式。

有人说在金融帝国里的高级管理人员并不是富有同情心的人——至少他们正处于自己人生中比较缺乏同情心的阶段，我认为这种说法从很多方面来看都是正确的。由于身处残酷的金融游戏中，他们不得不拼命地追赶，因而过于具有竞争精神，而且由于过于忙碌，他们无暇更多地考虑别人的需求。很显然，他们不是护士，也不是幼儿园的老师。但就算是用公共政策让他们变得更有同情心，对解决我们现在所面临的问题也无济于事。

在目前公众对金融市场存在强烈不满的氛围下，如果政治人物承诺扩大和发展金融市场，会使得他们在选战中处于不利的位置。但是，这确实是我们现在要用来解决次贷危机和防止未来类似的危机再次发生所必需的。

## 致谢

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我对普林斯顿大学出版社社长彼得·多格蒂的感激之情难以言表，在他的引导下，我脑海里一些关于当前金融危机的思考得到了进一步的演进，并且汇集成了一本短篇专著。在撰写这本书的过程中，我不时回想起第一位导师弗朗科·莫迪利亚尼所教授的知识，正是在他的指导下我懂得了经济学的社会目的。乔治·阿克洛夫也激发了我的思维，我和他曾一起合著过一本关于动物精神和经济的书，这本书已经于2009年问世了<sup>①</sup>。其他在撰写本书过程中给予过帮助的人，我在此一并感谢，他们是：莎拉·格林伯格，杰西卡·杰弗斯，比约恩·约翰逊，特里·勒布斯，理查德·卡德里克，丹尼尔·鲁斯金，阿瑟·纳什，乔纳森·瑞斯，约翰·席勒，T·N·斯瑞尼瓦森，罗尼·沃尔尼，和詹姆士·沃里克－亚历山大。我的助手卡萝·科普兰给予了全身心的支持，没有她的帮助，这本书不可能及时出版。最后，我欠妻子弗吉尼亚·席勒的最多，结婚30多年来，她对我给予了极大的耐心和爱心，也对我的科研工作给予许多专业支持。

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1. 《动物精神》一书简体中文版已由中信出版社出版。——编者注



## 附录

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### Preface to the Paperback Edition

The first edition of this book appeared in August 2008, after the housing-induced financial calamity began, but a month before the collapse of Lehman Brothers, Merrill Lynch, and American International Group marked the transition to a full-blown crisis. The motivation for the book, as described then, was to deal with a real worry even before the worst of the crisis was seen: the worry that we could experience several more years of a bad economy, possibly even a lost decade, and, even worse, that such a crisis could repeat decades and more into the future. The concern was both short-term, dealing with the existing crisis, and long-term, getting things right for the rest of the century so as to prevent the next such crisis.

Indeed, we now know that it was right to worry about the future: we have seen a continually bad economy in many places around the world since 2008. World Bank data show that by 2010, all North American economies and three-quarters of European economies, as well as the Australian, New Zealand, and Indian economies, had sunk even further, with employment-population ratios even lower than in the extreme crisis year

of 2008. ④As of 2012, the situation looks even worse in many of these places.

This book argues that the subprime crisis, as it was called, was in essence the bursting of a real estate bubble. This remains true from today's perspective, even though other subsequent events have captured attention. This bubble, and the psychology that lay behind it, was the ultimate cause of the crisis. Financial innovation was not the primary or ultimate cause of this bubble, as so many have concluded. Certainly, growing pains in innovation were part of the story. Regulatory inattention and central bank laxity before the burst were also significant parts of the story, but not the central explanation, for these were consequences of the same complacency that the bubble brought with it.

Subprime loans, which gave the name to this crisis, were part of this bubble in many countries around the world, and still stand for it globally, even though subprime loans were less prominent outside the United States, where the crisis began. As the worldwide crisis has evolved, concern has shifted from subprime loans toward government debt, and the latest phase in the crisis (particularly centered on Greece, Spain, Italy, and some other European countries), called the European sovereign debt crisis, has taken center stage. But the circumstance that produced the subprime crisis is still the fundamental cause of our later troubles. The bubble-induced complacency, in the decade that preceded this crisis, complacency about higher levels of debt in the United States, which led to its subprime boom and bust, came from the same

mold as the complacency that led to higher levels of European government borrowing. Moreover, the actual European sovereign debt crisis was triggered in 2009 by the loss of confidence in the financial system that the subprime crisis created. In this century the financial system is interdependent around the world, in terms of contractual interconnectedness, and cultural and institutional similarities.

Clearly, a great deal was lost with the subprime crisis. This book is an attempt to explain the origins and economics of the subprime crisis—as a precipitator of the financial crisis. But more than that, it is a call for innovating and advancing the institutions that we depend upon for maintaining stable asset markets and a vibrant economy.

The sad history of finance over the past four years, since the first edition of this book, is an ongoing story that calls for both immediate measures and long-term institutional reforms. The long-term reforms I favor, including, among others, more flexible mortgage instruments, are described in Chapter 6 of this book, and I stand by them. But more immediate measures are also needed to deal with homeowners whose mortgages remain underwater.

## **Through a Glass Darkly: Housing Finance and How It Crashed**

From our perspective several years later, we can ask: why did this subprime market boom and bust so badly? A combination of errors appears to have been at work. The fundamental error was the seemingly near-universal belief

then that home prices could never fall, at least not for very long, a belief that there is a persistent uptrend in home prices.

In 2011, Karl Case and I asked of recent home buyers in four cities: “Do you agree with the following statement?

‘Home prices can never fall, or at least if they do fall they will bounce right back up.’ ” We asked this question after home prices in the United States had been *actually falling* for almost five years, and still, even so, 20% of the respondents said they agreed. During the boom that preceded this crisis the fraction who thought this must have been much higher. It is perhaps unlikely that most people seriously thought about it and concluded that home prices could never fall, but many people did apparently believe that the long-run economic pressures of population and economic growth inevitably would push home prices up.

If you really believe that home prices have little risk of a sustained price decline, then you will probably think that mortgage securities are quite secure. If anyone fails to repay the mortgage the lender can just foreclose and sell the house and this will bring enough money to get the loan balance repaid. Moreover, usually there will not even be a foreclosure, since the homeowner who no longer wants to pay on the mortgage would usually rather sell the house and pocket the equity, thus avoiding foreclosure and its attendant costs.

It has long been a mystery to me why so many people thought, in the years before the current crisis, that home prices could never fall for very long. To me, it seemed obvious, from the rapid increase of home prices starting in the opening years of this century, and the abnormally high level that these prices attained by the eve of the crisis, that they might go down and stay down for a very long time. It seemed self-evident that this was a housing bubble, and a number of other people thought so. But these people were always in the minority. When on occasion I asked people why they thought home prices could never fall for long, I found that almost inevitably they had not read history or looked at any data, and merely trusted to the conventional wisdom.

We have to place trust not in conventional wisdom, but in serious analysis of history and in the social sciences. More fundamentally, we need to place our trust in the theory of mathematical finance, as it has been filtered and modified by the behavioral finance revolution.

Another seeming mystery: why did the residential-mortgage-backed securities (RMBS) market get so big, when people saw no need for it before the 1970s? What is the difference, really, whether one invests in RMBS or in shares in banks that own mortgages, as was the practice before Freddie and Fannie started issuing these?

Securitization was never really commonplace in most countries. Securitization has been particularly prominent in the United States, where it was given a powerful impetus of

government support. Without the government subsidy effectively given to Fannie Mae and Freddie Mac in the United States, mortgage securitization never really managed to get started.

Theorists before the financial crisis thought that mortgage securitization was an important innovation. Securitized mortgages help solve a “lemons” problem. ④ This problem, first given a theoretical exposition by George Akerlof, refers to the reluctance many people have to buying anything not suitably standardized and verifiable, like a used car, because they worry that they cannot judge whether the product has defects, and worry that sellers will deliberately stick them with a “lemon.” The seller knows whether the item sold is good or bad, but the buyer does not. When you believe that the seller is going to give you the bad stuff, then you won’t pay more for it than the lowest price. So, the seller won’t even offer the good stuff to you, and the market becomes a market just for the bad stuff. Securitization was an innovation because it helped solve just this lemons problem.

A lemons problem is not incurable. Financial innovation can deal with it, at least in part. Placing mortgages into securities that are evaluated by independent rating agencies, and dividing up the evaluation of a company’s securities into tranches that allow specialized evaluators to do their job, efficiently lowers the risk to investors of getting the lemons. Investors ought to be able to trust the higher-tranche CDOs more than any pool of mortgages or any share in

a complex and difficult-to-understand mortgage-lending institution. So, they would tend to be more willing to invest in them, and capital would become more available for housing.

So splitting into tranches was a good idea. But the idea did not work out well in practice. The reason is largely the error noted above, that everyone, including the rating agencies, thought home prices just couldn't fall. So, even though the theory was sound, the securities were often overrated, and people were too trusting in them.

And that is the trouble that has caused financial crises again and again. Given human nature, we are always vulnerable to bubbles and their bursts.

This example of securitized mortgages illustrates the kinds of financial innovation that are extolled and projected into the future in this book, albeit at a time when the public is increasingly hostile and suspicious of any financial innovations.

## **The Continuing Relevance of the Proposals in This Book**

The most prominent *short-run* measure mentioned in this book, in Chapter 5, is to get some kind of workout for homeowners who are underwater on their mortgages. Unless they get a mortgage-indebtedness reduction, they will be a drag on confidence and the economy. The short-run proposal described in this book was to create something like the Home Owners Loan Corporation that was created in the United States in the Great Depression. But nothing like this has happened yet. The

U.S. government, in the country that epitomizes this problem, has made a number of efforts to reduce the burden on homeowners who are underwater—Home Affordable Modification Program (HAMP), Home Affordable Refinancing Program (HARP), Homeowner Affordability and Stability Plan (HASP), and the second edition of HARP (HARP II)—and yet all of these are disappointments; not many mortgages have been worked out under these programs.

The situation has not been getting better. Home prices in the United States, according to the S&P/Case-Shiller National Home Price Index, have fallen another 18% from the time the first edition of this book appeared until the first quarter of 2012, putting homeowners yet far more underwater, and leaving home values 35% below their peak in 2006. As of 2012, according to an estimate from CoreLogic's latest *Negative Equity Report*, nearly a quarter of all U.S. households are now underwater. Unless this problem is solved, millions more foreclosures are likely in the United States alone. There is a similar, though generally smaller, problem in other countries that have had substantial home price declines.

The problem has not been that there isn't a public will to see mortgage workouts happen more often. Indeed, many mortgage workouts would benefit mortgage investors and homeowners alike, and serve the national and international interest. The problem, most pronounced in the United States, has been that it has been difficult to go through the legal tangles that were left in the wreckage of the subprime



crisis. Any policy change would affect investors in first and second mortgages differently, and would affect the different tranches of collateralized debt obligations differently. It is hard to get people together to decide on what to do with the mortgages. That is, there is a collective action problem that the government is most suited to solve.

It has taken a long time to work through the legal possibilities of dealing with these tangles, but there does seem to be some hope today of putting a solution in place. There is a movement afoot to get state and local governments in the United States to use their power of eminent domain to impose mortgage workouts on investors. With this power the governments can legally condemn mortgages in the public interest, pay the owner of a mortgage a true market value for the mortgage (arguably far below the face value given the likelihood of default, and below the value that mortgage investors may record on their books), and reissue the mortgage to the homeowner with a lower principal, lower but still enough for the government investors to get paid back on the purchase of the mortgage. San Bernardino County and the city of Ontario, California, have begun actions to start a joint-powers authority to do just that. ⑨ Thus, there is still hope that something like the help for underwater homeowners proposed in this book may come to pass.

But the use of such measures to restore the economy is not something we want to plan to rely on for the long run. It is better to pursue longer-term solutions that do not require such drastic measures. These longer-term changes should have

the form of making the financial system work better without government intervention, by redesigning our financial institutions so they make more sense from the standpoint of our financial theory.

Some of the longer-term proposals in Chapter 6 have actually seen the light of day. A prominent theme in this book was that we need to take concrete steps to democratize finance, make it work better for the people. The U.S. Dodd-Frank Act of 2010, often described as the most significant financial legislation in the United States since the Great Depression of the 1930s, has taken some democratizing steps. The act creates an Office of Financial Research, which is intended to make information formerly known only to financial insiders available to the entire population. The act creates something akin to the new information infrastructure proposed here, by assembling new financial databases and making them available for public use. The act also creates a Bureau of Consumer Financial Protection (as originally proposed by Elizabeth Warren), described in this book as a new financial watchdog. The act even also provides for some degree of more comprehensive financial advice, with its new Office of Housing Counseling. The U.S. Patient Protection and Affordable Care Act of 2010 also helps democratize finance and improves the information infrastructure. It created health insurance exchanges and reduced selection bias that inhibits individuals from purchasing insurance by prohibiting preexisting condition exclusions and establishing an individual responsibility requirement, an individual mandate.

Somewhat similar long-term measures have been taken, or are under discussion, in other countries around the world. It is difficult to summarize all of these, since there are so many countries, but suffice it to say that the Group of 20 (G20) statements issued by finance ministers and central bank governors do indicate some coherence in the direction of long-term policy responses to the crisis around the world. The statements stress the importance of “financial inclusion.” The G20 goal is to develop a “Basic Set of Financial Inclusion Indicators, which will assist countries, policymakers and stakeholders in focusing global efforts on measuring and sustainably tracking progress on access to financial services globally.” There will also be “data initiatives in support of financial inclusion.” The G20 finance ministers also endorsed a Financial Consumer Protection Network as a “global network of market conduct financial authorities” and “recognize the importance” of financial education. 注

The concept of financial democracy advocated in this book is similar to, but not the same as, that of the financial inclusion advocated in the G20 statements. The democratization of finance in this book is fundamentally about financial innovation that will bring more of the concerns of people under the umbrella of finance risk management and incentivization and not just improve access to conventional financial resources.

Governments find it difficult to innovate in this way, and it is more natural for them to think in terms of

subsidizing or taxing already-ongoing activities. Real innovation takes time, and tends to come mostly from the private sector, from those who practice finance, with the government as facilitator and rule-maker. And the innovation tends to come only slowly, over many years.

Most of the long-term proposals described in this book have still not seen the light of day. The need is as strong as ever for subsidizing financial advisers who will sign an oath of loyalty to their clients, never taking commissions or fees, as proposed here, and for the fundamental mortgage reform exemplified by the continuous-workout mortgage proposal here. We need to create new units of economic measurement, like the “baskets” that will make inflation indexing easier and help prevent delusions like “home prices never fall.” We still need to create new and more comprehensive markets for risks that really matter to people, like the risk of home price decline. We still need to think of better forms of government financing, like the shares in GDP, called here trills. We still need to think of better risk management devices, like home equity insurance or livelihood insurance. These are all fundamental changes that will help us to deal with the kinds of human error and failures to manage risk properly that brought us the financial crisis.

The slowness of financial innovation is not surprising, judging from historical experience, which implies that fundamental financial reform takes decades, even centuries. Some of the recommendations proposed herein are very

ambitious. They will take much more time. But we have to start working on first steps now, if the important innovations are to take place even within decades. We have to focus today on our longer-term objective to make the financial system serve the people better, to prevent the possibility of a very long recovery from this crisis, and the possibility of yet another crisis like it.

## Acknowledgments

I am profoundly grateful for the guidance of Peter Dougherty, director of Princeton University Press, who had the inspiration to see how ideas I had expressed about the current financial crisis could be developed further and woven together into a short book. As I wrote this book, I found myself reflecting on the work of the late Franco Modigliani, my first mentor, who taught me about social purpose in economics. Ideas came too from George Akerlof, for we wrote together a book about animal spirits and the economy, which appeared in 2009. Others to whom I owe gratitude for help with this book include Sara Greenberg, Jessica Jeffers, Bjorn Johnson, Terry Loeb, Richard Kadlick, Daniel Luskin, Arthur Nacht, Jonathan Reiss, John Shiller, T. N. Srinivasan, Ronit Walny, and James Warrick-Alexander. I could not have written this book in a timely manner without the devoted support of my assistant Carol Copeland. Finally, I am indebted to my wife, Virginia Shiller, for her patience and emotional

support, as well as her intellectual contributions to my work through the three decades of our marriage.

## Introduction

The *subprime crisis* is the name for what is a historic turning point in our economy and our culture. It is, at its core, the result of a speculative bubble in the housing market that began to burst in the United States in 2006 and has now caused ruptures across many other countries in the form of financial failures and a global credit crunch. The forces unleashed by the subprime crisis will probably run rampant for years, threatening more and more collateral damage. The disruption in our credit markets is already of historic proportions and will have important economic impacts. More importantly, this crisis has set in motion fundamental societal changes—changes that affect our consumer habits, our values, our relatedness to each other. From now on we will all be conducting our lives and doing business with each other a little bit differently.

Allowing these destructive changes to proceed unimpeded could cause damage not only to the economy but to the social fabric—the trust and optimism people feel for each other and for their shared institutions and ways of life—for decades to come. The social fabric itself is so hard to measure that it is easily overlooked in favor of smaller, more discrete, elements and details. But the social fabric is indeed at risk

and should be central to our attention as we respond to the subprime crisis.

History proves the importance of economic policies for preserving the social fabric. Europe after World War I was seriously damaged by one peculiar economic arrangement: the Treaty of Versailles. The treaty, which ended the war, imposed on Germany punitive reparations far beyond its ability to pay. John Maynard Keynes resigned in protest from the British delegation at Versailles and, in 1919, wrote *The Economic Consequences of the Peace*, which predicted that the treaty would result in disaster. Keynes was largely ignored, the treaty remained in force, and indeed Germany never was able to pay the penalties imposed. The intense resentment caused by the treaty was one of the factors that led, a generation later, to World War II.

A comparable disaster—albeit one not of quite the same magnitude—is brewing today, as similar concerns are hammering at our psyches. Once again, many people, unable to repay their debts, are being pursued aggressively by creditors. Once again, they often feel that the situation is not of their own making, but the product of forces beyond their control. Once again, they see once-trusted economic institutions collapsing around them. Once again, they feel that they were lied to—fed overly optimistic stories that encouraged them to take excessive risks.

It is impossible to predict the nature and extent of the damage that the current economic and social dysphoria and

disorder will create. But a good part of it will likely be measured in slower economic growth for years to come. We may well experience several years of a bad economy, as occurred, for example, after the profligate mortgage lending booms in both Sweden and Mexico in the early 1990s. There could even be another “lost decade,” like that suffered by Mexico in the 1980s after its spending spree during the oil price boom, or by Japan in the 1990s after the bursting of the 1980s bubble in its stock and housing markets.

In this book I argue that the housing bubble that created the subprime crisis ultimately grew as big as it did because we as a society do not understand, or know how to deal with, speculative bubbles. Even intelligent, well-informed people—who certainly knew that there had been bubbles throughout history and could even recite examples—typically did not comprehend that an epidemic of irrational public enthusiasm for housing investments was the core of the problem. Business and government leaders did not know how to deal with this situation, nor did they establish the kinds of new financial institutions that could have managed it.

The view that the ultimate cause of the global financial crisis is the psychology of the real estate bubble (with contributions from the stock market bubble before that) has certainly been expressed before. But it would appear that most people have not taken this view to heart, and at the very least that they do not appreciate all of its ramifications. Accounts of the crisis often seem instead to place the ultimate blame entirely on such factors as growing



dishonesty among mortgage lenders; increasing greed among securitizers, hedge funds, and rating agencies; or the mistakes of former Federal Reserve chairman Alan Greenspan.

It is time to recognize what has been happening and to take fundamental steps to restructure the institutional foundations of the housing and financial economy. This means taking both short-run steps to alleviate the crisis and making longer-term changes that will inhibit the development of bubbles, stabilize the housing and larger financial markets, and provide greater financial security to households and businesses, all the while allowing new ideas to drive financial innovation.

## **A Crisis in a Bubble**

By now the whole world has heard the story of the problems in the subprime mortgage market, which began to show up in the United States in 2007 and then spread to other countries. Home prices and homeownership had been booming since the late 1990s, and investing in a house had seemed a sure route to financial security and even wealth.

U.S. homeownership rates rose over the period 1997 - 2005 for all regions, all age groups, all racial groups, and all income groups. According to the U.S. Census, the homeownership rate increased from 65.7% to 68.9% (which represents an 11.5% increase in the number of owner-occupied homes) over that period. The increases in homeownership were largest in the West, for those under the age of 35, for those with below-median incomes, and for Hispanics and blacks.

Encouraging homeownership is a worthy and admirable national goal. It conveys a sense of participation and belonging, and high homeownership rates are beneficial to a healthy society. Later in this chapter I trace the evolution of the systems put in place in the United States in the twentieth century to promote homeownership. But the subprime housing dilemma in the United States points up problems with over-promoting homeownership. Homeownership, for all its advantages, is not the ideal housing arrangement for all people in all circumstances. And we are now coming to appreciate the reality of this, for the homeownership rate has been falling in the United States since 2005.

What was the chain of events in the subprime crisis? Overly aggressive mortgage lenders, compliant appraisers, and complacent borrowers proliferated to feed the housing boom. Mortgage originators, who planned to sell off the mortgages to securitizers, stopped worrying about repayment risk. They typically made only perfunctory efforts to assess borrowers' ability to repay their loans—often failing to verify borrowers' income with the Internal Revenue Service, even if they possessed signed authorization forms permitting them to do so. Sometimes these lenders enticed the naïve, with poor credit histories, to borrow in the ballooning subprime mortgage market. These mortgages were packaged, sold, and resold in sophisticated but arcane ways to investors around the world, setting the stage for a crisis of truly global proportions. The housing bubble, combined with the incentive system implicit in the securitization process, amplified

moral hazard, further emboldening some of the worst actors among mortgage lenders.

High home prices made it profitable to build homes, and the share of residential investment in U.S. gross domestic product (GDP) rose to 6.3% in the fourth quarter of 2005, the highest level since the pre-Korean War housing boom of 1950 - 51. The huge supply of new homes began to glut the market, and, despite the optimistic outlooks of national leaders, U.S. home prices began to fall in mid-2006. As prices declined at an accelerating rate, the boom in home construction collapsed.

At the same time, mortgage rates began to reset to higher levels after initial “teaser” periods ended. Borrowers, particularly subprime borrowers, began defaulting, often owing more than their homes were worth or unable to support their higher monthly payments with current incomes. Now many of the financial institutions that participated in what once seemed a brave new world of expanding homeownership and exotic financial innovation are in varying degrees of distress. The world’s credit markets have shown symptoms of locking up.

We may be in for a severe economic contraction that could create hardship for millions of people, spreading far beyond the subprime borrowers at the center of the crisis. Major losses occurred in U.S. banks and brokerage firms. The heads of Citibank, Merrill Lynch, and Morgan Stanley lost their jobs. The situation remains critical.

The crisis has bled over to other sectors besides housing. Credit card and automobile loan defaults have been ominously increasing. The credit ratings of municipal bond insurers are being downgraded, creating a risk that the problem will spread to state and local government financing. The market for commercial paper has suffered a severe shock, and the market for corporate loan obligations appears troubled as well.

Nor did the subprime crisis end at America's borders. Booming real estate markets have shown signs of peaking, or at least of flattening out, in many countries. The effects of the financial crisis have also filtered into other countries, as witnessed by the failures of IKB Deutsche Industriebank AG, SachsenLB, WestLB, and BayernLB in Germany, the failure of funds sponsored by BNP Paribas in France, and the run on the Northern Rock Building Society in the United Kingdom.

Then again, these problems from outside the United States have fed back into the country, manifested in a declining dollar, a faltering stock market, and more financial failures, notably that of the venerable U.S. investment bank Bear Stearns. This grim feedback loop—with problems moving from the United States to the rest of the world and back again to the United States—has certainly not yet run its course.

The same feedback seems also at this date to be contributing to a global energy crisis and a global food crisis. Speculative enthusiasm has helped push oil prices to

record levels, stimulating a demand for ethanol for fuel from grains, thus reducing the supply of grains for food. Prices of grains are shooting up so high that poor people have difficulty staving off hunger.

The same kind of speculative thinking that has propelled the stock market and housing market in the recent past seems to be at work in these markets as well. The nations of the world have had difficulty protecting themselves from these crises. A number of less developed countries have tried to protect themselves from the global food crisis by putting export controls on food grains. But they have found that such controls do not work, since prices of grains within their borders stay high after such controls, as speculative hoarding within the country responds to the high world food prices and withdraws supply from local markets. Speculative instability in the market for food may eventually result in price breaks there, but one shudders to think of the human consequences until it does.

### **Mend It, Don' t End It**

The current financial crisis is often viewed as a reason to sound retreat—to return to yesterday' s simpler methods of financial dealing. This would be a mistake. On the contrary, the current situation is *really* an opportunity to redouble our efforts to rethink and improve our risk-management institutions, the framework that undergirds our increasingly sophisticated financial sector. Despite the present crisis, modern finance has produced historic

achievements in recent decades and serves as a powerful engine of economic growth, from underwriting new businesses in the private sector to supporting vital research in the universities to building schools and hospitals in the public sector.

Every crisis contains the seeds of change. Now is the time to restructure the institutional firmament of financial activity in positive ways that will stabilize the economy, rekindle the wealth of nations, reinforce the best of financial innovation, and leave society much better off than if there had not been such a crisis.

This book is an effort to explain the current subprime crisis and lay the foundation for such an institutional rebirth. It suggests both commonsense short-run fixes and deeper long-term improvements that will serve us into the indefinite future. The book cannot consider all the proposals and counterproposals that others have offered to deal with the crisis—there are simply too many of them. But it will set forth the greater goals around which future solutions might cluster.

The book is intended for readers in countries all over the world. The subprime crisis is now a truly international event, and the solutions offered here can generally be adapted to other countries as well.

As already noted, institutional reform means providing a stronger framework within which our real estate and financial markets can operate. No matter how powerful and

technologically sophisticated the train, it is only as good as the track on which it runs. Regulatory and insurance institutions are the track that carries our financial and real estate markets. But these existing risk-management institutions are old and unstable. We are running bullet trains on ancient track. Our leaders in government and in business must overhaul and replace the rails and ties. The subprime solution is all about institutional reform: the vision to see beyond short-term fixes and the courage to undertake reform at the highest levels.

## **Lessons from the Last Big Housing Crisis**

While the implications of the subprime crisis are global, the crisis itself must be understood in its place and time of origin, twentieth-century America. Before the current problem, the last major housing crisis in the United States took place in 1925 - 33. Home prices fell a total of 30% over this interval, and the unemployment rate rose to 25% at the peak of the Great Depression. The crisis revealed glaring defects in the financial institutions of the period. At that time most people borrowed with shortterm mortgages of five years or less, which they expected to roll over shortly before they came due. As the crisis took hold, borrowers increasingly found that they were unable to refinance their mortgages, and so they stood to lose their homes.

No public institutions were in place at the time to prevent borrowers from being evicted from their homes owing to their inability to secure new mortgages. But because

concerted efforts were made by leaders to change the institutional framework, mass evictions were avoided and recovery was eventually achieved.

The policy responses to that historical crisis are an inspiration for the kind of solutions that should be promoted to address the current crisis. As the housing problems of the Depression era worsened, major innovations appeared in the private and public sectors. While history has emphasized the importance of Franklin Delano Roosevelt's New Deal, the significant changes were not simply the result of one man's policies. Rather, they reflected an effort, involving leaders from government and business alike, to try to understand the crisis and change the institutional infrastructure of the U.S. economy.

The National Association of Real Estate Boards, a precursor to today's National Association of Realtors, proposed in the early 1930s that Congress create a new home-loan banking system, parallel to the Federal Reserve System that had been legislated in 1913. Just as the Federal Reserve System had twelve regional banks, so too did the new Federal Home Loan Bank System. Just as the Federal Reserve System had the power to discount assets of its member banks, so too could the Federal Home Loan Bank System provide the same help to mortgage originators. This was large-scale thinking in response to a large-scale crisis. The Federal Home Loan Bank System has since been modified, but it is still with us today, providing assistance during the current crisis by supplying funding for mortgages.



Private-sector reforms were equally innovative. In 1932 the real estate appraisal industry pulled itself together to become a truly professional organization with the founding of the American Institute of Real Estate Appraisers, whose successor today is the Appraisal Institute. It was not formally called the Appraisal Institute until it merged with the Society of Real Estate Appraisers in 1991. Yet by the early 1930s its accredited members were already putting the initials M.A.I., for “Member, Appraisal Institute,” after their names as a credential. Under the pressure of the crisis, the newly professionalized appraisal industry began taking advantage of the latest developments in information technology, processing data on a large scale using punched cards and computing systems produced by Remington Rand and the International Business Machines Corporation. The improvements that originated in the private sector during the housing crisis of the 1930s have continued to the present day, helping prevent—or at least limit—further crises by providing a more secure valuation of homes for mortgage lenders.

A landmark change occurred on the legislative front as well, in response to the crush of foreclosures against homeowners. The U.S. Congress approved a new bankruptcy law in 1933, near the end of the administration of Herbert Hoover, which made it possible for the first time for most ordinary wage earners to avail themselves of bankruptcy protection. Thus the crisis led to reforms that not only stabilized the housing sector but further democratized the financial institutions of the day, creating public goods that

made more effective financial technology available to everyone.

The reforms did not stop there. In 1933, with Roosevelt as the new president, Congress created the Home Owners' Loan Corporation (HOLC), which lent to local home-financing institutions, taking risky home mortgages as collateral, and thereby provided a government subsidy to home mortgages. But the HOLC did more than simply provide a subsidy: the organization changed the very standards of the mortgage industry. The HOLC insisted that the new mortgages it sponsored be fifteen-year loans that were both fixed-rate and self-amortizing, that is, that were paid off by steady monthly payments with no large payments due at maturity.

In 1934 Congress created the Federal Housing Administration (FHA), which was intended to promote homeownership among those who could not then afford homes. The FHA went even further than the HOLC in improving the institution of mortgages, raising maturities to twenty years and also requiring, as did the HOLC, that mortgages be fixed-rate and self-amortizing. This began a trend to the familiar fixed-rate mortgage of today; starting in the 1950s, mortgages began to be thirty-year instruments, again with FHA encouragement.

Also in 1934 Congress created the Federal Deposit Insurance Corporation, which insured our banking system against the kind of terrible collapse that had occurred in 1933 in connection with the housing crisis. Deposit insurance

on a national scale was a radical new idea then; it has served us very well, and there has not been another bank run in the United States since.

A further innovation introduced in 1934 was the creation by Congress of the Securities and Exchange Commission (SEC), a regulatory agency that was dedicated from the start to making financial markets work. The SEC has dealt constructively with the financial community, doing its job in a way that is fair and useful to all parties.

In 1938 Congress created the Federal National Mortgage Association, later nicknamed (and now officially renamed) Fannie Mae, which further supported the mortgage industry and eventually fostered the widespread securitization of mortgages.

The soundness of the ideas implemented in response to the financial crisis of the 1930s is evident in the durability of the institutions created: all but the HOLC are still in existence. Moreover, these institutions have become models for similar institutions the world over. While it took many years, and often decades, for some of these institutional models to be disseminated across the globe, every country with developed economic institutions now has the equivalent of the SEC, some such organizations having been established as recently as the 1990s. Virtually every major country of the world also has deposit insurance for its banks and institutions to encourage homeownership for those with lower incomes.

## **Band-Aids for a Burst Bubble: Today' s Response**

Despite the severity of the current subprime crisis, the response by government today has been disappointingly limited relative to that in the 1930s, and totally inadequate given the scope of the problem.

The FHASecure bailouts announced by President George W. Bush in the summer of 2007 were supposed to help borrowers whose adjustable-rate mortgages were resetting at prohibitively high rates. But as of mid 2008 the total FHASecure refinancing amounted to less than 2% of the single-family guaranty book of business of that 1930s legacy, Fannie Mae.

The Master Liquidity Enhancement Conduit (MLEC) “Super S.I.V.” rescue plan, proposed in the fall of 2007 by U.S. Treasury Secretary Henry M. Paulson Jr., would have been, at maximum, less than a tenth the size of the Federal Home Loan Bank System that fortunately is still with us from Great Depression reforms. As it turned out, the MLEC was canceled altogether.

The standards for adjustable-rate mortgage resets promoted by the American Securitization Forum in 2007 will result in mortgage payment adjustments less than 1% of the deposits insured by that 1934 creation, the Federal Deposit Insurance Corporation.

The Project Lifeline extensions of time before foreclosure that the Bush administration announced it had

negotiated in February 2008 were only a thirty-day extension of the time to failure. All this amounted to but a statement of intent on the part of major lenders in response to the president's calls for action.

Other measures taken include interest rate cuts by the Federal Reserve; the Term Auction Facility (TAF), announced December 21, 2007; the Term Securities Lending Facility (TSLF), announced March 11, 2008; and its Primary Dealer Credit Facility (PDCF), announced March 16, 2008, as well as the passage of the Economic Stimulus Act of 2008, signed into law by President Bush on February 13, 2008. Although perhaps helpful, the tax rebates in the stimulus package, and the total size of the TAF, TSLF, and PDCF loans altogether have so far been on the order of only a half a percent of U.S. household assets; while they have been increasing, they are still not up to the magnitude of the problem. Even if their scope were greatly expanded, we do not know that any of these specific measures would do much to solve the fundamental crisis of confidence that lies at the heart of the subprime crisis. 注

None of these proposals represents a true institutional innovation that would create a better environment to support our real estate and financial markets. They are all merely quick fixes that fail to address the full scope of the problem.

The U.S. Congress has been slow to react to the crisis. U.S. Senator Charles Schumer (D-NY), at a 2007 Joint Economic

Committee hearing at which I was a witness, said, “I fear that we still don’t appreciate the seriousness of the problem we are facing. Our policy responses are not matching the magnitude of the risk that still lies ahead.” 注 That was some months before this writing, and the Fed and Congress have since paid more focused attention to the crisis, but it is still unclear that they are going to be effective in committing the substantial resources the situation demands. As the crisis worsens and begins to consume significant amounts of government resources, they may simply not be able to keep up. The steps taken so far have been ad hoc, and unlike the 1930s nothing fundamental is being done.

## **Framing Institutional Reform for the Future**

Reporters repeatedly ask me what I think is the probability of a protracted recession spurred by the subprime crisis. Only rarely do they ask me what I think should be done to solve the fundamental problems highlighted by the subprime crisis, or inquire about how we could set up new or reformed institutions that might help insulate our society against the fundamental problems that underlie the crisis. But these are *exactly* the questions we should be asking ourselves. A plan to dramatically reduce our vulnerability to financial crises like the current subprime crisis would rest on two principles.

*In the immediate short run, government and business leaders must deal with the problem created by the bubble and its aftermath. The ship is sinking, and we have to save it*

before we do anything else. In fact, we have to bail out some people who have fared particularly badly, and we also have to arrange bailouts in certain extreme cases to prevent failure of our economic system. These bailouts must be done promptly and correctly, so that they do not come across as unjust or unfair. This situation also calls for a short-term government intervention designed to shore up those mortgages that are teetering on the edge of default, perhaps modeled after the Home Owners' Loan Corporation of the 1930s.

*In the longer run, as noted above, we need to develop stronger risk-management institutions to inhibit the growth of bubbles—the root cause of events such as the current subprime crisis—and to better enable the members of our society to insulate themselves against them when they do develop.*

This proposed subprime solution means embracing the following goals:

*First, improving the financial information infrastructure so that the greatest number of people can avail themselves of sound financial practices, products, and services.* This means delivering enhanced financial information, better financial advice, and greater consumer protection to larger segments of society, and also implementing an improved system of economic units of measurement. These steps will set the necessary groundwork, so that all consumers and households can make financial decisions based on the best possible intelligence rather than rules of thumb or, worse still, mere whimsy.

Better financial information and decision making would, by themselves, check the incidence of bubbles.

*Second, extending the scope of financial markets to cover a wider array of economic risks.* Such an initiative would include, in the first instance, vastly expanded markets for handling real estate risk such as the new futures markets in Chicago, and also markets for other vital economic risks as well. These broader markets, coupled with a more sound information infrastructure, would provide the financial foundation for a variety of new initiatives that would help to inhibit the growth of bubbles.

*Third, creating retail financial instruments—including continuous-workout mortgages, and home equity insurance—to provide greater security to consumers.* Today the typical household has as its principal investment its home. A home represents a highly leveraged exposure to a single, stationary plot of real estate—about the riskiest asset one can imagine. The standard mortgage provides no protection against difficulties in repaying the lender due to changes in the marketplace. But mortgages can and should be designed to compensate for these changes by including provisions to ensure homeowners against their major risks. Other retail institutions can protect those who have paid off their mortgages, and they can protect non-homeowners from economic contractions as well.

If we work toward these goals, we would not only curb the creation of the bubbles that fuel crises such as today's



subprime disaster but also afford greater protection against risks, encourage better financial behavior and enhanced household wealth, strengthen the social fabric, and create the conditions for greater economic stability and growth.

Implementing these and other important institutional changes in all their detail is a tall order. But this is a project for leaders from all segments of society, not merely a president's or a prime minister's inner circle. It will require the combined efforts of policy makers, business executives, the media, and academics. Fortunately we still have the time, resources, and intellectual capital to do this—if only we recognize the urgent necessity for change.

## **From Subprime Blues to Financial Democracy**

Although the subject comes up only rarely in the public discourse on the current financial crisis, the advent of subprime mortgages during the 1990s reflected a start, albeit primitive, toward extending the benefits of financial innovation to more and more people—in other words, toward democratizing finance. Prominent commentators, from former Fed chief Alan Greenspan through the late real estate economist Edward Gramlich, considered the subprime mortgage movement a positive development (despite some abusive lending practices) because it effectively expanded the franchise for asset ownership to millions of low-income people.

But subprime mortgages, for all their lofty social aspirations, were a disaster in their implementation: they lacked the kind of risk-management institutions necessary to

support the increasingly complex financial machinery needed to underwrite them—the subject of this book.

If safe, effective, and enlightened approaches to designing risk-management institutions can be deployed as the basis for future market activity, the subprime crisis cannot merely be solved—it can be transformed in its aftermath into a better environment for extending the financial franchise, for further democratizing finance.

The first assumption underlying such an effort is the need to better understand the risks inherent in real estate and to acquire the know-how to more efficiently spread these risks. The subprime mortgages, for all their democratic appeal, were launched with a woeful failure to understand real estate risks.

A second assumption is that the democratic extension of the innovations of modern financial technology must be done with a clearer understanding of human psychology, so that the spreading of risk can foster proper economic incentives and limit moral hazard. The subprime crisis was essentially psychological in origin, as are all bubbles. The crisis was not caused by the impact of a meteor or the explosion of a volcano. Rather it was caused by failure to anticipate quite obvious risks—by “irrational exuberance” at the prospects for profits, if one bought into the concept of an ever-expanding bubble.

Ultimately the solution to the economic problems revealed by the subprime crisis requires our doing a much better job

of extending the innovations of modern financial technology, together with effective safeguards, throughout society, and of being unafraid to think and act on the scale of the New Deal - era reformers. Democratizing finance is crucial in this process: by spreading risk, it places economic life on a firmer foundation. Financial democracy is thus not only an end in itself, but a means to another, equally worthy, end: the propagation of greater economic stability and prosperity by financial means.

The democratization of finance has in a limited sense already been embodied in the so-called microfinance revolution. The 2006 Nobel Peace Prize, awarded to Muhammad Yunus and the Grameen Bank, has given new impetus to the innovations they set in motion. The microfinance revolution consists of novel institutions that make loans to the tiniest of businesses, often in the least-developed parts of the world.

Yunus has received a sympathetic hearing from world leaders in China, Russia, and elsewhere. More broadly, leaders in emerging countries around the world are showing interest in bringing financial services to more and more people. Mexican president Felipe Calderón has called for policies to promote “financial culture” in his country. The Inter-American Development Bank has launched an action campaign to expand the range of financial services available to the general population throughout Latin America.

Yet another initiative associated with financial democracy is that of the Peruvian policy innovator Hernando de Soto, author of *The Mystery of Capital*, whose work in asserting the importance of property rights in developing countries has underscored the vital link between legal property ownership among the poor and access to financial capital from domestic and foreign sources alike.

Some of the components of the subprime solution outlined in this book are in the same vein as these initiatives, yet there are differences. The measures called for here are, in the first instance, intended for the most advanced countries. They are not only for the poor, but also for people who are struggling to make do with modest incomes, and indeed for everyone. This book is about dealing with the subprime crisis, and future crises like it, by *developing a new financial infrastructure for the entire population*, and doing so using the most advanced technology at our disposal.

## **A Road Map of This Book**

In the remaining chapters of this book I describe the current subprime crisis with an eye toward understanding its dimensions and its psychological origins. Then I detail both short-term and long-term solutions. Central to this brief manifesto will be the need for action. Reforming the institutional framework is an urgent task, to which we must turn immediately if we are to halt the damage caused by the subprime crisis and learn from it, so that we can move forward to a new and better economic system.

# Housing in History

The housing bubble was a major cause, if not *the* cause, of the subprime crisis and of the broader economic crisis we now face. The perception that real estate prices could only go up, year after year, established an atmosphere that invited lenders and financial institutions to loosen their standards and risk default. Now the defaults are happening, massively and contagiously.

As of this writing, according to the Standard & Poor's / Case-Shiller Home Price Indices, which I helped create, U.S. home prices have already fallen nearly halfway back down to their pre-bubble levels. The rate of fall of prices has been speeding up.

Nominal price decreases will eventually slow down and stop, but may not then keep up with general inflation. Continuing real price drops could eventually bring us all the way back down from the recent historic peak in places in the United States and other countries as well. The cumulated price declines could severely test our economic institutions. The relatively slight price declines already recorded have thus far produced a crisis of mortgage defaults for relatively few mortgage holders, and the impact to date on the financial institutions that issued, insured, or held these mortgages may be minor compared to the damage that may yet unfold. Many hedge funds are highly leveraged, and further declines in asset values may put those who are, as of now, still looking strong far under water. Their failure

would in turn put pressure on banks and other financial institutions.

Or, the problem could express itself in more general inflation, which central banks might tolerate because inflation tends to support nominal home prices and bails out borrowers by reducing the real value of debt. While we may wish to think of the subprime problem as a oneact play, soon to end, it could in fact be but the first act of a long and complex tragedy.

## **Revealing History**

In 2004, when I was writing the second edition of *Irrational Exuberance*—updating and expanding what had been a book largely about the stock market boom of the 1990s to cover the real estate boom of the 2000s as well—I wanted to include an analysis of the long-term performance of the housing market. This would have paralleled the approach I had taken to the stock market in the first edition.

To my surprise, everyone I asked said that there *were* no data on the long-term performance of home prices—not for the United States, nor for any country. Stop and think about that. If the housing boom is such a spectacular economic event, wouldn't

you imagine that someone would care if this kind of thing had happened before, and what the outcome had been? But, amazingly, nobody seemed interested in what had happened more than thirty or so years ago. This is at once a lesson in human behavior and a reminder that human attention is

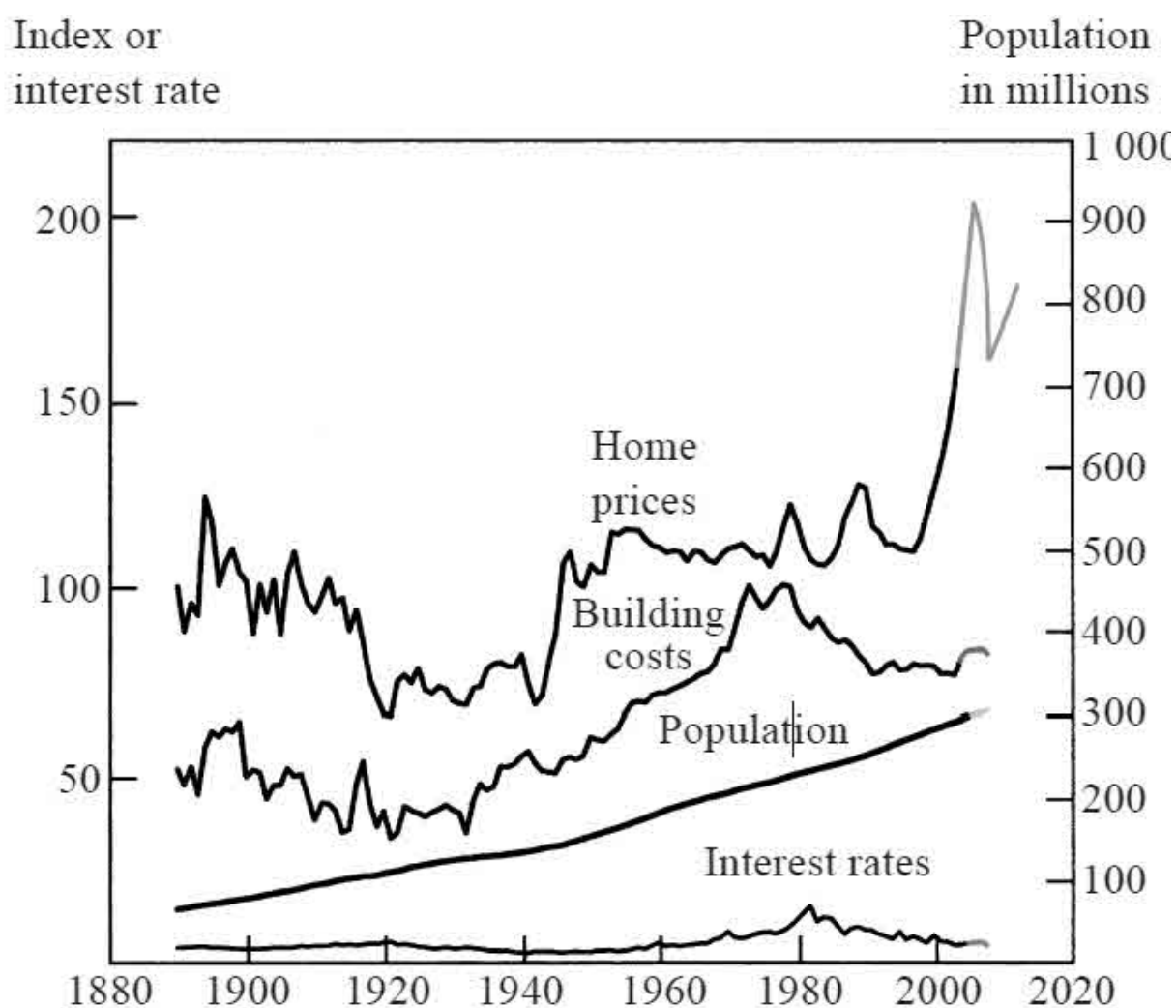
capricious. Clearly *no one* was carefully evaluating the real estate market and its potential for speculative excess.

I found that, at various times over the past century or so, economists had indeed constructed price indices of existing homes, but only for relatively short time intervals. Until recent decades, no one had produced these on an ongoing basis. Thus the earlier price indices remained as merely isolated scraps of historical data.

So I constructed my own index of U.S. existing-home prices dating all the way back to 1890. I did so by linking together various available series that seemed to be of the highest quality. I chose only indices that were designed to provide estimates of the price of a standard, unchanging house, so that the price index would represent the outcome of an investment in a house and would not be affected by the general upward trend in the size and quality of homes through time. I could find no index at all for the years 1934–53, and so I had my research assistants fill that gap by tabulating prices in for-sale-by-owner ads in old newspapers. That period remains the weakest link in my index, but I did the best I could do to fill the gap.

Figure 2.1 in the second (2005) edition of *Irrational Exuberance* showed the real (corrected for consumer price inflation) home-price index, along with building costs, the population of the United States, and the longterm interest rate, over the period 1890–2004. The very same figure is shown here, also as Figure 2.1, updated; the continuations of

the curves since 2004 are shown in gray rather than black. I wrote in the second edition that home prices were looking *very* anomalous at that time, like a “rocket taking off.” 注 Real home prices for the United States as a whole increased 85% between 1997 and the peak in 2006. Home prices certainly did not seem justifiable in terms of changes in the other variables shown in the figure. It looked like the rocket might come crashing back down to earth.



**Figure 2.1.**

U.S. Real Home Prices, 1890 - 2008, along with Building Costs, Population, and Long-Term Government Bond Interest Rates, annual 1890 -



2008. *Source:* From Robert J. Shiller, *Irrational Exuberance*, 2nd Edition (Princeton, N.J.: Princeton University Press, 2005), p. 13, updated here, with updates shown in gray. Home price index is shown quarterly for 2007-I to 2008-I.

And, as is obvious from the gray segment of the home price curve, the data do indeed show a sharp drop in home prices after 2006. The rocket has fallen—and the bust after the peak was not explainable by any significant change in the other variables.

Ratios of home prices to building costs had soared in the run-up to the peak of the market in 2006, as had ratios of home prices to rent and home prices to personal income. Now these ratios are falling. The misalignment of home prices with economic fundamentals is strongly suggestive of economic instability. And it is evidence of a problem that may not go away until prices correct massively. There are certain basic economic laws that—while they may be bent over short intervals—ultimately always assert themselves in the long run.

## **Diversity of Price Paths**

The seemingly unprecedented behavior of national home prices since the late 1990s is in fact not unprecedented if one looks at individual cities. Housing markets in some cities have gone through spectacular booms in the past. But the fraction of cities experiencing booms has increased dramatically in the recent boom. Figure 2.2 shows examples of some of our major metropolitan areas, again with the S&P/Case-Shiller Home Price Indices corrected for inflation.

The figure reveals differences in price behavior across cities. Real estate is still a market where location counts. But despite these differences across cities *before* the peak in 2006, *now* they are *all* declining. The rate of decline is roughly inversely proportional to the speed of the increase. As the figure shows, Las Vegas, Miami, and San Francisco have both risen faster before 2006 and declined faster afterward than the more stable cities Chicago and New York.

Real home  
price index  
(1987 = 100)

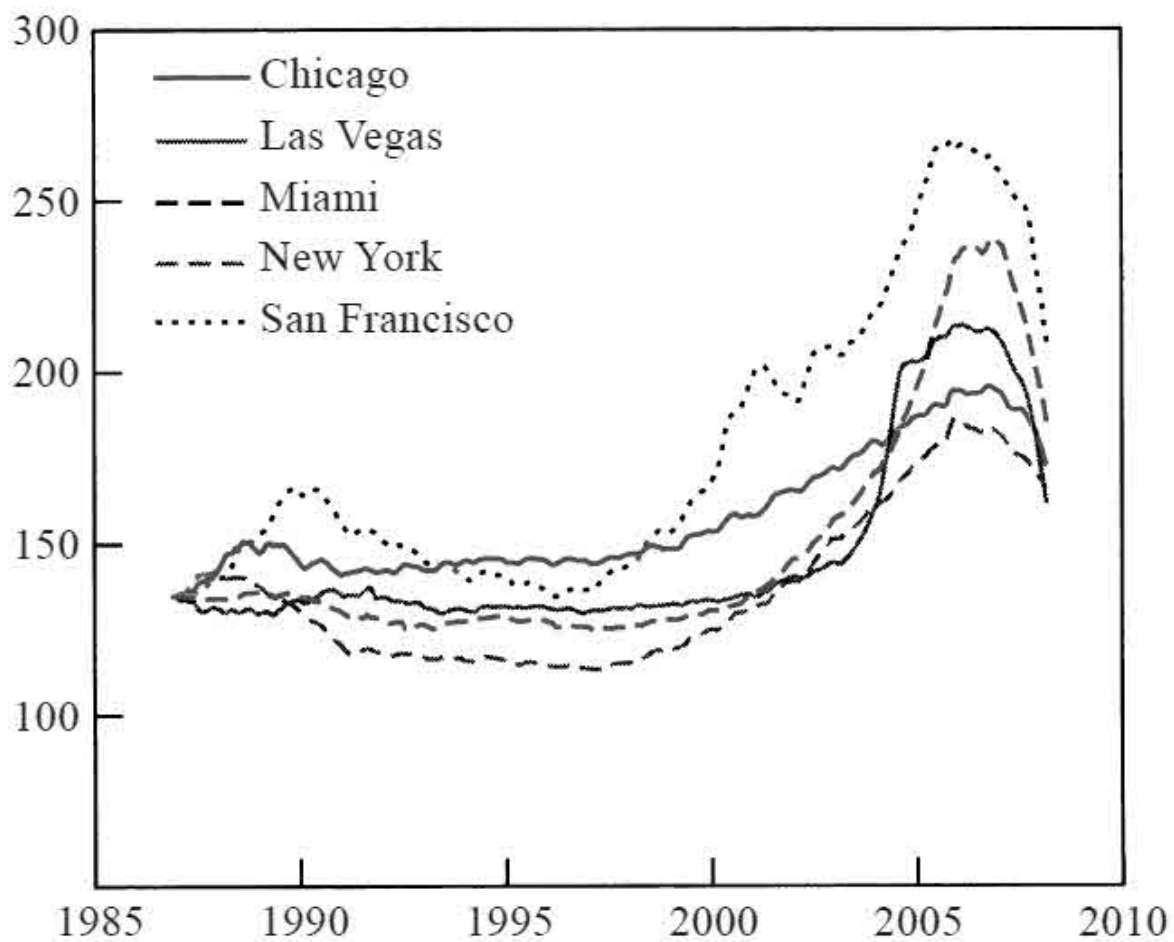
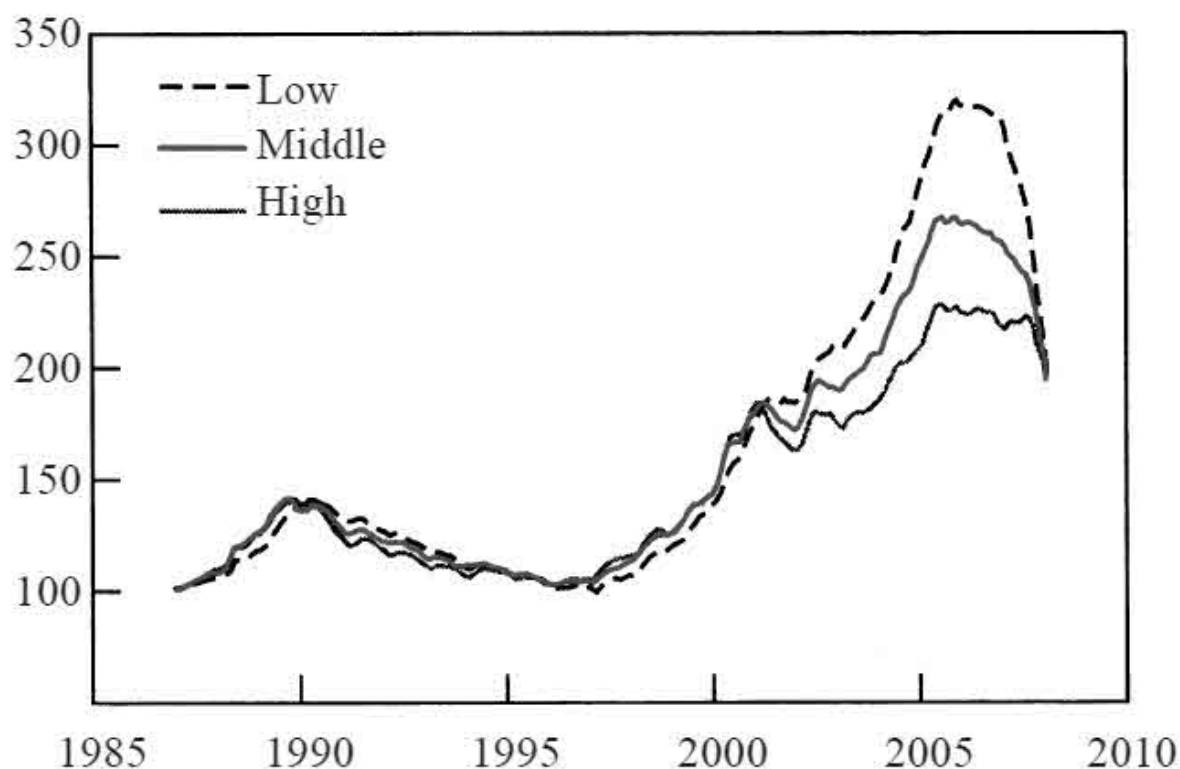


Figure 2.2

**Real Home Prices in a Sample of Cities, Monthly, January 1983 to March 2008. Source:** Author's calculations using data from [www.homeprice.standardandpoors.com](http://www.homeprice.standardandpoors.com) and [www.bls.gov](http://www.bls.gov).

In addition to differences across metropolitan areas, there were also differences across segments *within* these markets. Note that there are separate markets by price tier: low-priced homes behave considerably differently through time than high-priced homes. Figure 2.3 shows the example of metropolitan San Francisco, broken down into three price tiers.

Real home  
price index  
(1987 = 100)



**Figure 2.3**

**Real San Francisco Metro Area Home-Price Indices by Price Tier, Monthly, January 1987 to March 2008. Source: Author's calculations using data from [www.homeprice.standardandpoors.com](http://www.homeprice.standardandpoors.com) and [www.bls.gov](http://www.bls.gov).**

The lowest price tier showed the biggest increases during the recent boom, until 2006, and the biggest drop afterward. The same phenomenon may be observed in many cities. What accounts for this difference across tiers is not known precisely, but a good candidate to explain it is the subprime phenomenon. The steep increases are due to the rapid expansion since 2001 of subprime loans, which were provided in increasing numbers to lower-income buyers and for the purpose of financing the purchase of lower-priced homes and investor properties. And the more rapid fall in lower-tier home prices since the 2006 peak of the boom appears to be consonant with the problems of default and foreclosure in that tier.

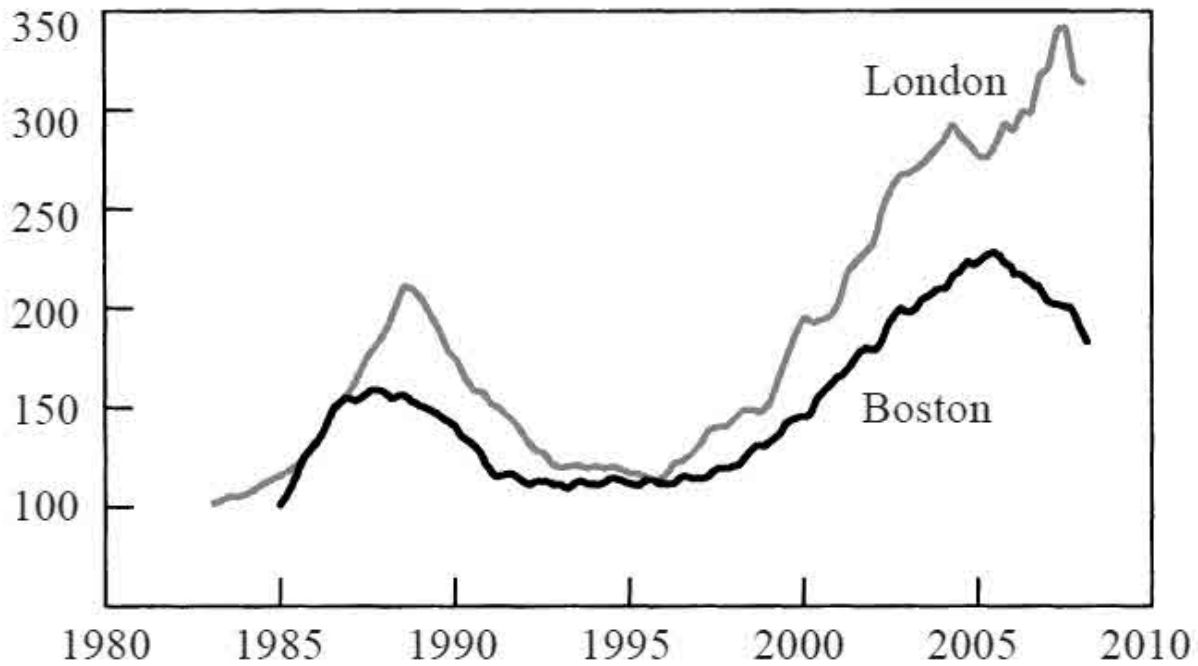
However, even though there have been differences in price behavior across price tiers, we still see that the behavior of all price tiers is basically similar. There was a boom in low-priced homes, in midprice homes, and in high-priced homes, and now the boom is unraveling in all these markets.

While some countries have still-booming housing markets, there are many that show patterns like the United States. Figure 2.4 shows a comparison of real home prices in greater London and greater Boston. The overall similarity between the cities, on opposite sides of the Atlantic, is striking. There are of course differences, but the broad patterns are indeed similar. Both cities experienced booms in the 1980s. Both

experienced collapse in the early 1990s. Both cities experienced rapidly rising home prices in the early 2000s. Home prices in both are declining sharply according to the latest data.

The pervasiveness of the boom of the early 2000s across cities, across price tiers, and across countries suggests that something very broad and general has been at work. We cannot explain the bubble in terms of factors specific to any one of these markets. I argue in the next chapter that an important ultimate cause of these extraordinary price movements in so many different places is related to the contagion of market psychology—a contagion that knew no borders because of the global nature of the story that fed it.

Real  
price index  
(1983, 1985 = 100)



**Figure 2.4**

**Real Greater London and Greater Boston Home Prices.**

*Source:* London prices quarterly 1983-I to 2008-I are from the Halifax House Price Index, divided by the U.K. Retail Prices Index. U.S. prices monthly January 1983 to March 2008 are from the S&P/Case- Shiller Home Price Indices, divided by the Consumer Price Index.

## Bubble Trouble

Let us look again at Figure 2.1, which shows home prices since 1890. What in the world has been happening since the

late 1990s to propel home prices up so dramatically?

The figure shows that there were no fundamental changes in construction costs, population, or long-term interest rates at the time of the boom. So what *was* the cause?

Whatever it was, it was not seen by national leaders, especially not in the United States, where pride in the superiority of our capitalist system sometimes seems to approach religious fervor. During this housing boom, most of our authorities simply denied there was a problem. Alan Greenspan, in his 2007 book *The Age of Turbulence*, recalled what he used to say about the housing boom: “I would tell audiences that we were facing not a bubble but a froth—lots of small local bubbles that never grew to a scale that could threaten the health of the overall economy.” 注

President Bush virtually never mentioned the housing boom in his public pronouncements while it was happening. He referred only to successes. In one of his weekly radio addresses to the nation, in 2005, he boasted that “mortgage rates are low. And over the past year the home homeownership rate in America has reached record levels.” 注

Ben Bernanke, then chairman of the President’s Council of Economic Advisers, said in 2005: “House prices have risen by nearly 25 percent over the past two years. Although speculative activity has increased in some areas, at a national level these price increases largely reflect strong economic fundamentals, including robust growth in jobs and

incomes, low mortgage rates, steady rates of household formation, and factors that limit the expansion of housing supply in some areas.” 注

These people were certainly aware of the possibility of bubbles. Indeed Greenspan must have been thinking of this when I and my colleague John Y. Campbell, along with others, were asked to testify before the Federal Reserve Board on December 3, 1996, two days before Greenspan made his famous “irrational exuberance” speech. He heard us out. His autobiography reveals that he was wrestling with the idea of bubbles. But he concluded, as did so many others, that bubbles were not tangible enough to justify any policy changes.

Something was going on—in both the stock market bubble of the 1990s and the real estate bubble that followed it—that these leaders found very difficult to see as it was happening. So it will necessarily be something of a challenge for us to understand what it was.

### A Contagion of Ideas

While every historical event is the outcome of a combination of factors, I believe, as I argued in *Irrational Exuberance*, that the most important single element to be reckoned with in understanding this or any other speculative boom is the *social contagion* of boom thinking, mediated by the common observation of rapidly rising prices. This social contagion lends increasing credibility to stories—I call



them “new era” stories—that appear to justify the belief that the boom will continue. The operation of such a social contagion of ideas is hard to see because we do not observe the contagion directly, and it is easy to neglect its underlying causes.

Some observers seem to be ideologically opposed to the idea that contagion of thought patterns plays any role in our collective thinking. Indeed, people think the world is led by independent minds who invariably act with great intelligence. Since the bubble years of the late 1990s, intellectual arrogance of this kind appears to have exerted a growing influence over the world economy.

Alan Greenspan, in a *Financial Times* op-ed piece in March 2008, recognized—well after the bubble was over—that there had indeed been “euphoria” and “speculative fever.” But, he wrote, “The essential problem is that our models—both risk models and econometric models—as complex as they have become—are still too simple to capture the full array of governing variables that drive global economic reality. A model, of necessity, is an abstraction from the full detail of the real world.” 注

Greenspan thus did eventually acknowledge the obvious reality of bubbles, but he never seemed to embrace the view that a good part of what drives people’s thinking is purely social in nature. He espoused the idea that the mathematical econometric models of individual behavior are the only tools that we will ever have with which to understand the world,

and that they are limited only by the amount and nature of our data and our ability to deal with complexity. He does not seem to respect research approaches from the fields of psychology or sociology.

Perhaps his lack of attention to bubbles reflected, at least in part, an overly strong ideological alignment with some of the views of his former mentor, the philosopher Ayn Rand. She idealized the strength of individual, independent, courageous action and rational selfish man as a “heroic being.” But a tendency to base one’s self-esteem on a belief in the possibility of economic success through individual action goes far beyond the admirers of Ayn Rand.

What seems to be absent from the thinking of many economists and economic commentators is an understanding that contagion of ideas is consistently a factor in human affairs. Just as there are interregional differences in matters of opinion (as evidenced, for example, by the geographic concentration of support for political parties), so too are there intertemporal differences. The changing zeitgeist drives common opinion among the members of society at any point in time and place, and this zeitgeist changes as new ideas gain prominence and recede in importance within the collective thinking. Speculative markets are merely exceptionally good places in which to observe the ebb and flow of the zeitgeist.

Understanding such a social contagion is a lot like understanding a disease epidemic. Epidemics crop up from time

to time, and their timing often baffles experts. But a mathematical theory of epidemiology has been developed, and it can help medical authorities better understand these apparently mysterious events.

Every disease has a contagion rate (the rate at which it is spread from person to person) and a removal rate (the rate at which individuals recover from or succumb to the illness and so are no longer contagious). If the contagion rate exceeds the removal rate by a necessary amount, an epidemic begins. The contagion rate varies through time because of a number of factors. For example, contagion rates for influenza are higher in the winter, when lower temperatures encourage the spread of the virus in airborne droplets after infected individuals sneeze.

So it is in the economic and social environment. Sooner or later, some factor boosts the infection rate sufficiently above the removal rate for an optimistic view of the market to become widespread. There is an escalation in public knowledge of the arguments that would seem to support that view, and soon the epidemic spirals up and out of control. Almost everyone appears to think—if they notice at all that certain economic arguments are more in evidence—that the arguments are increasingly heard only because of their true intellectual merit. The idea that the prominence of the arguments is in fact due to a social contagion is hardly ever broached, at least not outside university sociology departments.

In the recent speculative housing boom, an optimistic view of the market was certainly much in evidence. In a survey that Karl Case and I conducted in 2005, when the market was booming, we found that the median expected price increase among San Francisco home buyers over the next ten years was 9% a year, and the mean expected price increase was 14% a year. About a third of the respondents reported truly extravagant expectations— occasionally over 50% a year. On what did they base such outlooks? They had observed significant price increases and heard others' interpretation of such increases. We were witnessing the contagion of an interpretation or a way of forming expectations.

An important part of what happens during a speculative bubble is mediated by the marketplace, to which many people are attentive, and by the prices that are observed there and subsequently amplified by the news media. What do we mean by “amplified” in this context? The media weave stories around price movements, and when those movements are upward, the media tend to embellish and legitimize “new era” stories with extra attention and detail. Feedback loops appear, as price increases encourage belief in “new era” stories, promote the contagion of those stories, and so lead to further price increases. The price - story - price loop repeats again and again during a speculative bubble.

The feedback loops also take the form of price-economic activity-price loops. Speculative price increases encourage genuine economic optimism, hence more spending, hence greater economic growth, hence more spending, hence greater economic

growth, hence yet more optimism, hence further bidding up of prices. Most persons can be forgiven for not seeing that the sense of economic prosperity that usually attends a major speculative bubble is actually caused by the bubble itself and not by economic fundamentals.

Under certain circumstances the explanations for contagion and feedback during speculative bubbles may be perfectly rational, and “rational bubbles” can be part of the story. A number of economic theorists have discussed the possibility of such bubbles. The essential element of these rational bubble theories is that people may learn about the information that others have by observing their behavior. They cannot respond directly to the information that others have, since they cannot see inside their heads. But they may base their own decisions on the *actions* of others (as when they bid up speculative prices), which they interpret, wholly rationally, as reflecting valid information about economic fundamentals.

The problem is that we can arrive at a situation in which people are generally adopting an excessively optimistic (or excessively pessimistic) view, because they are rationally but mistakenly judging the information that others have. To borrow a term used by economic theorists Sushil Bikhchandani, David Hirshleifer, and Ivo Welch, speculative bubbles may be caused by “information cascades.” An information cascade occurs when those in a group disregard their own independent, individually collected information (which might otherwise encourage them not to subscribe to a boom or other mass

belief) because they feel that everyone else simply couldn't be wrong. And when they disregard their own independent information, and act instead on general information as they perceive it, they squelch their own information. It is no longer available to the group and so does not figure in further collective judgments. Thus, over time, the quality of group information declines.

Psychological, epidemiological, and economic theory all point to an environment in which feedback of enthusiasm for speculative assets, or feedback of price increases into further price increases, can be expected to produce speculative bubbles from time to time. They make clear that these bubbles can have complicated—sometimes random and unpredictable—dynamics.

## **Other “Causes” of the Bubble**

The interpretation of the bubble that I have just offered is not the conventional wisdom. Other factors are widely cited as the cause of the housing boom. I argue here that, to a large extent, these other factors were themselves substantially a *product* of the bubble, and not exogenous factors that caused the bubble.

The U.S. Federal Reserve cut its key rate, the federal funds rate, to 1% in mid-2003 and held it there until mid-2004, roughly the period of most rapid home-price increase. Moreover, the real (inflation-corrected) federal funds rate was negative for thirty-one months, from October 2002 to April 2005, an interval again centered on the most rapid rise

in home prices. Since 1950 the only other period of low rates as long as this one was the thirty-seven-month interval from September 1974 to September 1977.

We should not, however, view this period of very loose monetary policy as an *exogenous* cause of the bubble. For the monetary policy—both that of the Fed and that of other central banks around the world—was driven by economic conditions that were created by the bursting of the stock market bubble of the 1990s, and the real estate boom was itself in some ways a repercussion of that same stock market bubble.

This loose policy would not have been implemented if Alan Greenspan and others involved with monetary policy had comprehended that we were going through a housing bubble that would burst. Thus the monetary policy appears to have been driven at least in part by the same lack of understanding that produced the bubble itself. The Fed was excessively focused on preventing recession and deflation because they honestly saw the home-price increases as continuing—if at a reduced pace—indefinitely, even if they were to implement a monetary policy that would feed the bubble.

The interest rate cuts cannot explain the general nine-year upward trend that we have seen in the housing market. The housing boom period was three times as long as the period of low interest rates, and the housing boom was accelerating when the Fed was increasing interest rates in 1999. Moreover, long-term interest rates, which determine the rates for

fixed-rate conventional mortgages, did not respond in any substantial way to these rate cuts until the late stages of the boom.

The impact of the loose monetary policy was amplified by the large number of adjustable-rate mortgages issued after 2000, particularly to subprime borrowers. These mortgages were more responsive than fixed-rate mortgages to the cuts that the Fed had made. So the rate cuts might have had the effect of boosting the boom, more than would otherwise have been the case, during its time of most rapid ascent, around 2004.

Adjustable-rate mortgages were common because those who had been influenced by bubble thinking and wanted to get into real estate investments as heavily as possible were demanding them. The mere fact that interest payments would be going up soon did not deter them. They expected to be compensated by rapidly increasing home prices, and they believed that those higher prices would permit them to refinance at a lower rate. Subprime borrowers wanted these mortgages in disproportionate numbers both because they were less quantitatively sophisticated and because they were consumed by the mere thought of somehow gaining a foothold in the housing market.

The demand for loans made with more flexible standards was accommodated by lenders because they themselves (as well as the investors in the mortgages that they sold off) believed in the bubble. That is why the period of soaring real estate prices corresponded to a time when no-



documentation loans became common and when option ARMs and other questionable new mortgage types proliferated.

Moreover, the rating agencies that pass judgment on securitized mortgages persisted in giving AAA ratings to mortgage securities that ultimately were vulnerable because they too believed that there would be no bursting of the bubble. Even if they did harbor some doubts about the continuation of the boom, they were not about to take the drastic step of cutting ratings on securitized mortgage products on the basis of the *theory*, not widely held, that home prices *might* actually fall. That would have been an unusually courageous step—and one that was all too easily postponed in favor of other business decisions that were easier to make, until it was too late.

Another factor often mentioned as a cause of the housing bubble is the failure of regulators to rein in aggressive lending. Ever since the Depository Institutions Deregulatory and Monetary Control Act of 1980 effectively ended state usury laws, and made it possible for originators to make a profit with subprime lending by charging a high enough interest rate to offset the costs of the inevitable defaults and foreclosures, there had been a need for expanding the scope of regulation. Yet the expanded regulation never came, and over time during the 1990s and into the 2000s, a “shadow banking system” of nonbank mortgage originators was allowed to develop without anything like the regulation to which banks are subject.

But the lack of urgency among regulators in doing their job must ultimately have originated in their inability to believe that there could ever be a housing crisis of the proportions we are seeing today.

When I gave talks near the peak of the bubble in 2005 at the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation, both major bank regulators in the United States, I found staff members there in disagreement about what to do about the lending boom. I urged them to take prompt action to stop the excess of mortgage lending that was feeding an unsustainable bubble. The reaction I got was that, yes, they understood that *maybe* they should, and that indeed *some* among them thought so, but that it was just taking time—and negotiation—to arrive at any strong consensus. I had the feeling that many of them viewed me, with my argument that the bubble would burst, as an extremist who deserved a skeptical response.

When in October 2006 I participated in a panel sponsored by the Yale Investment Club, I shared the dais with Frank Nothaft, chief economist at Freddie Mac, a major securitizer of home mortgages. As I recall the event now, I asked him if Freddie Mac had stresstested the impact on itself of a possible housing price decline. He answered that they had, and they had even considered the possibility of a 13.4% national drop in home prices. I protested: “What about the possibility of a drop that is bigger than that?” He answered that such a drop had never happened, at least not since the Great Depression.

During the housing market debacle after the 1980s home-price boom, the U.S. government passed the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (GSE Act), which in turn created the Office of Federal Housing Enterprise Oversight (OFHEO) to oversee the risks to government-sponsored enterprises Fannie Mae and Freddie Mac. One of OFHEO's objectives, specified in the act, was to prevent even the possibility of a financial freeze-up. OFHEO is still with us today, watching out for possible systemic risks. The GSE Act required that OFHEO develop a stress test that simulates possible adverse interest rate and credit risk scenarios, and OFHEO has done so.

However, in its annual reports to Congress through 2007, OFHEO never showed any recognition of the housing boom that has been the main cause of the risks, let alone any understanding of its psychological origins. These regulators did not seem to see the risk, and they allowed Freddie and Fannie to go on supporting the housing boom.

Ultimately an important reason why all these factors fed the bubble has to be that the very people responsible for oversight were caught up in the same high expectations for future home-price increases that the general public had. In many cases they may not have believed as zealously in the housing boom, but they nevertheless accepted the received wisdom that it could not end badly. And that was the end of the story.

Evidence that institutions never expected these costly defaults can be seen in the total disarray in which many found themselves as the subprime market melted down. For example, by the end of 2007 banks were begging to be relieved from the requirements of Financial Accounting Standard 114. This rule, issued by the Financial Accounting Standards Board, requires banks to report bad loans (socalled impaired loans) based on the present value of future cash flows. It is an attempt to standardize the reporting of such liabilities and thus make it harder to conceal them in regulatory filings. The banks protested that they had never developed the computing power to handle the volume of such loan restructuring. They didn't develop it because they absolutely did not see the crisis coming.

This disarray is shown most clearly in the financial freeze-up that we have been experiencing around the world. Businesses of all varieties, in many countries, left their balance sheets vulnerable to changes in the prices of assets that were—directly or indirectly—tied to the real estate market.

The weakening of credit standards that led to this situation is part of the normal process of a speculative bubble, as was argued long ago by economists Hyman Minsky and Charles Kindleberger. In a climate of excessive optimism, people tend to take full advantage of a strong economy instead of protecting themselves from the possibility of a major correction—an eventuality that seems to them utterly remote.

## Changes in the Thinking That Creates Bubbles

So the new belief that investing in homes was just an awfully good idea fed the bubble after the late 1990s. But, one wonders, why did this happen just then? Why had such thinking not caught on, nationally or internationally, before? What made bubble thinking especially contagious after 2000?

It is not as if people were not interested in speculation before 2000. Hardly. In fact, land speculation was a widespread and well-known phenomenon, going far back into history.

In his 1932 book *The Great American Land Bubble: The Amazing Story of Land-Grabbing, Speculations, and Booms from Colonial Days to the Present Time*, the historian Aaron Sakolski argued that an atmosphere of speculation dates back to the beginnings of U.S. history. The opening line of the book says it all: “America, from its inception, was a speculation.” 注 It was widely perceived by the eighteenth century, Sakolski argued, that America would eventually be populated much more densely by vast numbers of immigrants. Land speculators from the late 1600s onward would buy thousands of acres for a shilling an acre and hope to sell them many years later to immigrants, doubling or tripling their money. There were waves of speculative mania, and land apparently sometimes became overpriced, leading to drops and to the ruination of speculators. Indeed the fever for land speculation infected some in the highest places. No less an

early American than George Washington, according to Sakolski, was a land speculator.

Homer Hoyt, in his 1933 book *One Hundred Years of Land Values in Chicago*, paints a similar picture of speculation in land values in the city of Chicago, which, he said, came to an end in the late 1920s because “the speculative public was forsaking real estate for the stock market.” ④ But, like Sakolski, Hoyt was talking mostly about *land* speculation (in choice lots and blocks within the Chicago metropolitan area), not about individual homeowners buying homes in ordinary neighborhoods in the hope of making a profit.

It is not coincidental, by the way, that both of these classic accounts of real estate speculation appeared right at the peak of the last great real estate crisis in the 1930s. That was when the public was most interested in real estate speculation. We have entered another era of heightened attention to real estate speculation, and new books about housing speculation have been appearing in great numbers. The focus on the real estate market that has increased the social contagion of bubble thinking appears to be related to the aftereffects of the stock market boom of the 1990s.

That boom involved a transformation of people's thinking about their role in the economy. The idea developed that we ought to expect to make a lot of money investing. The transformation went well beyond opinions about particular investment strategies to alter the very self-esteem mechanism that supports our egos. The Protestant work ethic that had

underlain the national psyche for so long underwent a makeover. To a substantial extent, we no longer admired those who were merely hard workers. To be truly revered, one had to be a smart investor as well.

It is the change in thinking about ourselves that is the deepest cause of the bubble, and may be slowest to unravel after the bubble comes to an end. George Akerlof and Rachel Kranton have shown persuasively that economic theorists must take as fundamental that people care more about who they are and how they are viewed than the kind of food they are eating or car they are driving. ④ A life as an investor has become more than a means to an end, it is an end in itself.

Since the 1990s we have also come increasingly to think that the movers and shakers of the world are smart investors too. We began to believe that nascent capitalism in China, India, Russia, Brazil, and other less-advanced countries was producing a vast new class of the wealthy, who would bid up the price of real estate and other assets that were in limited supply. Of course these countries really *were* developing. The mistake was in exaggerating the significance of these stories of emerging capitalism for the real estate market of today.

What is different with the recent bubble, in comparison with earlier bubbles, is that the “new era” story is one of economic pressures that will raise the price of every available piece of real estate. Real estate bubbles from other times in history have always been relatively local, and

the story that was seen to explain the bubble did not generalize to cover real estate everywhere.

The Florida land bubble that peaked in 1925, the biggest real estate bubble during the first half of the twentieth century, apparently spread a good deal beyond Florida, but it nevertheless had a relatively modest effect on urban home prices nationwide. National real home prices increased only 19% between 1921 and the peak of the bubble in 1925. The story then was essentially that Florida was being discovered, as the automobile proliferated, as an accessible place, and that land there was running out. That story would never be seen as justifying a boom in Cincinnati or Toronto.

Local housing booms certainly occurred long ago. There were housing booms even in the legendary days when the cowboys and Indians still roamed the American West. How could there have been a housing boom *then*, when the American West was still very much a frontier and land was extraordinarily abundant? But there was—in southern California, when people from all over the country converged there to speculate in homes. And, yes, there was a story then about California that justified the bubble, once again a story that did not generalize to other states.

The California bubble built up in the 1880s, peaked in 1887, and burst in 1888. Newspapers around the United States wrote abundantly about it as it happened, and the articles repeatedly praised the wonderful climate, beautiful scenery, and California lifestyle.



On the other hand there was also a great deal of contemporary skepticism as to why the California boom had assumed the proportions it did. A story in the *Los Angeles Times* of December 26, 1887, entitled "The Southern Boom," recounted the observations of one reporter from out of town:

At Los Angeles, the true home of the boom, you arrive at the hotel and are told they can give you meals but no bed. You scowl, scratch your head, and wish that every fool had not come to town the same day that you did. You sally forth, and at last are given a cot in the hall, and you are happy.

In the morning you start out to see the sights, and you begin to see them within the first block you go, and the further on you travel the more you see. You are continually inclined to paraphrase the old song "Mine eyes have seen the glory of the lord" with "Mine eyes have seen the marvel of the boom." But they have not. You can travel around for days in Los Angeles and not see it all. It is useless to attempt to describe it. As well try to count the stars in Heaven as to number the new buildings in construction at the present time. . . .

"What has done all this?" you ask. We answer: "The boom." "Well, what is the boom?" you inquire. We made the same inquiry of dozens of men in all avocations of life, and none could give us an answer. We were told it is something unprecedented in the financial and economic experience of the country. We asked if it would last, and were told that as it

came unbidden, it would probably be as erratic in its going.



The talk reported in this article is much the same as that we heard in the 2000s, with the same amazement about the price surge and the resulting construction activity, the same puzzlement about why it was happening.

Judging from newspaper stories written around the United States during the boom of the 1880s, the boom was national in the sense that everyone around the country had heard of it, and many from other states were rushing to southern California to participate in it. But there was no suggestion that it was national in the sense that people thought it would infect their city. For the story accompanying this boom always stressed that this was a California boom, and that it was driven by the appreciation of the rare beauty and climate of that area.

Still there are puzzles. California is a vast area, and the wonderful climate covers much of this area, and there was abundant farmland and raw land in the 1880s on which new homes could be built. But it must have seemed somehow plausible to many that the cities of California were shaping up to be such unique and desirable places that homes there were uniquely valuable and would stay that way.

How else could they justify paying high prices for a home in the 1880s in a California city when they could buy a huge farm just a short distance away? In a way, of course, they

were right: Los Angeles today remains very important—a hub of social, cultural, and economic activity. The error in thinking then was one of proportion—of thinking that prices there would rise so much and so fast from the 1880s going forward.

Most people do not understand the true nature of the bubble and try to think of speculative events as rational responses to information, for they do not understand contagion of thought. Their thinking tends to accept as simple fact the stories that accompany the bubble.

## **Understanding Public Thinking during Bubbles**

What has changed since the 1990s to make us suddenly avid speculators in homes in so many different places? Trying to answer that question requires that we go back to consider the forces that generate bubbles. Why, for example, was there a tulip mania in Holland in the 1630s—and why has the speculative fascination with tulips since left our collective consciousness?

I discussed this subject at some length in *Irrational Exuberance*, especially its second edition, and I present only some basic ideas here. There is something about the current collection of easily recalled views and ideas that encourages bubble thinking about homes, and, apparently, as well about oil prices and grain prices, though it is hard to pin down.

The new era story about the emergence of capitalist institutions over much of the world—notably emerging

countries like China and India—has captured the imagination of speculators, and their imagination connects this story with prices in many different markets, including energy, grains, even gold and other metals. The exaggerated attention to this story is behind the world energy crisis and the world food crisis as well as the housing bubble.

Most analysts do not see the link between all these speculative events. For example, some analysts—notably Paul Krugman—have claimed that there can be no bubble in oil prices because oil stockpiles have not soared, implying that speculators are not actively affecting the demand for oil. ④ But, despite the evidence from the stockpiles, the price of oil is, just as the price of housing, inherently and deeply speculative. The popular opinion that oil prices will be very high or even higher far into the future—as evidenced by oil futures prices—reduces incentives for producers to invest aggressively today in new extraction facilities, or for regulators to allow the environmental impact of rapid exploitation of oil sands, drilling oil offshore, or building new pipelines. The speculative stores of oil are mostly in the ground, and people are happy to leave them there for now despite high prices because they think prices may go higher, not lower.

The new era story we have been experiencing during this massive housing bubble somehow conflates land values with housing values. This admixture is in part simply the result of the bubble itself. It used to be that the underlying land typically constituted only 15% or so of the value of a home

in a typical city. So people thought of their homes as depreciating manufactured goods, like cars and boats, which require a lot of upkeep and eventually go out of style. But now that land value (defined as the price of a home minus the estimated cost of building the structure) is often over 50% of home value, we are starting to think of houses as if they are land. Since we see homes every day, there is a naturally high contagion rate, during a new bubble, for a story that describes homes as the best investment one can make.

The error that we are making is to think of this situation of heightened land values as a new equilibrium. There will be a natural process of finding ways to build homes on less land, or less expensive land. This can be achieved either through building higher-density housing, such as more and taller apartment buildings or infill development in urban centers, or founding new urban areas. But such considerations are three steps ahead of the average home buyer's thinking.

In fact there is plenty of cheap land available. The new thinking is that the land in cities is somehow very different from land elsewhere, that we cannot substitute cheaper land for expensive urban land, even in the long run, and that that will justify the very high expectations for its future price. This is such an important part of our bubble thinking that the next chapter will consider it at length.

## **The Forecastability of Housing Prices**

To understand the recent home-price bubble, it is necessary to reflect on the amazingly high level of forecastability of home prices. The housing market is totally different from the stock market, where prices more nearly resemble a “random walk.” In the stock market, prices may go up one day and down the next, with relatively little apparent pattern. But, with housing, the market seemed to go in the same direction year after year. U.S. home prices increased every year from 1997 to 2006. The rate of increase of home prices, which was negative in 1991, increased at a generally increasing rate in most years until 2005—a fourteen-year run of mostly increasing rates of increase of home prices.

Bubble thinking means thinking that the trend in prices will continue. Such thinking is mostly irrational for the stock market, since price trends are usually not consistent there. But, oddly, it seems quite rational for the housing market, at least when it is at the height of a boom. Looking at any of the figures in the last chapter, one is struck by how easy it has often been to forecast the housing market in recent decades.

Karl Case and I first confirmed this forecastability of home prices in an article we wrote for the *American Economic Review* in 1989. The real innovation in that article was our repeat-sales home-price index, which showed for the first time how home prices have actually been behaving. My former student Allan Weiss wanted to put this index into practice, and so in 1991 we set up a company, Case Shiller Weiss Inc.,

which he headed, to produce the indices. We sold the company in 2002 to Fiserv Inc., where Linda Ladner and David Stiff produce the indices for an S&P index committee under the direction of David Blitzer.

The home-price index that was most talked about in 1991 when we founded our company, the simple median of home prices published by the National Association of Realtors, was very noisy because there were rapid changes in the mix of sales from month to month. Large or high-quality houses may sell in one month, small or low-quality houses in another, and so the series *looked* noisy, just like the stock market. But when Case and I cleared out the noise by basing our index only on changes in prices of individual homes, thereby eliminating this mix problem, we found that home prices move exceptionally smoothly through time.

How can prices be so forecastable? Isn't it supposed to be very hard to forecast speculative prices, and aren't such prices supposed to at least approximate a random walk? Yet our statistical analysis confirmed that home prices *are* quite forecastable.

But how can this be? Isn't this the proverbial "money left on the table" that, according to economic theory, just should not happen? Couldn't somebody make a lot of money simply buying and leveraging property in a housing boom and selling a year or so later? How can it have been so easy to make money in real estate?

The answer is, in fact it *was* easy to make money in real estate during the boom in the 2000s—if one understood the momentum in home prices. Apparently, with better home-price data being published in the 1990s, some smart-money investors decided to take a flyer on this booming market, and those who did it and got out in time generally did succeed. It shouldn' t have been that hard to get out in time, either. We had two years of warning of a slowdown before prices actually started dropping.

This apparent profit opportunity was an important cause of the bubble, in that it sustained the feedback that generated the bubble. Indeed people were thinking that they could make a lot of money by buying housing, since they had seen others do it, year after year.

Then why did so many get caught by the bubble? They stopped seeing the bubble as a case of simple momentum that one could ride for a while but that must be exited before the market reversed course. Instead they came to believe the story that the boom would never end, as we shall see in the next chapter.

## The Real Estate Myth

The recent bubble has greatly encouraged public belief in a long-standing myth—the myth that, because of population growth and economic growth, and with limited land resources



available, the price of real estate must inevitably trend strongly upward through time.

Since the late 1990s people have increasingly come to believe in our existing cities—in their uniqueness, in their special status. As we saw in Chapter 3, the strength of this belief seems to be associated more with the idea that the increasingly capitalist world is growing rapidly richer than with the observation that simple population growth is at work in producing higher prices.

Indeed the GDP of advanced countries has been increasing at about 3% a year for many decades, and it stands a good chance of continuing to do so over the long run. The rate of GDP growth is even higher in less-developed countries. This might suggest to some that real home prices should rise at a similar rate. In fact that is not what has been happening, and it is not likely to happen in the future.

The fraction of incomes that is spent on housing in the national income accounts has been fairly constant over the decades—but the rising incomes are expressed not in rising home *prices* but in increasing *amounts* of housing consumed.

If one looks squarely at the issue, it is clear that the rise in value of existing urban areas has shown no tendency at all to make investors rich. If the real prices of homes had risen at just 3% a year over the past century, then we could generally not afford houses that are any better or bigger today than we could then. But we know that homes have in fact gotten much larger and better.

According to the U.S. Census, the average floor area in new one-family houses rose from 1,525 square feet in 1973 to 2,248 square feet in 2006, almost a 50% increase. And floor space is only one measure of home quality.

One can compare the average price of a new home with the Constant Quality Index of Home Prices, computed by the U.S. Census Bureau since the 1960s. The average nominal price of a new home rose by a factor of 8.605 in the thirty-five years between 1963 and 1998. (I chose a time period ending before the recent bubble, to avoid distortions.) But the Constant Quality Index of New Home Prices, also computed by the Census Bureau, rose by a factor of only 5.928. The ratio of those two factors is 1.452, which could be interpreted to mean that new homes were 45% better overall in 1998 than they were in 1963. By this measure, then, the rate of growth in new home quality was 1.1% a year. This is a good fraction of the growth of real per capita income over that interval, which was 2.4% a year. Moreover, average household size fell from 3.29 persons in the 1960 census to 2.63 persons in the 1990 census, a decline of 0.7% a year. We were able to spend our increased incomes on bigger homes and in spreading out among more homes. And we still had money left over to improve our standard of living in other ways, such as traveling more, spending more on entertainment, and demanding better health care. It is very clear that we were not struggling with relentless increases in home prices that even kept pace with our income.

## **Construction of New Homes—Outside the Glamour Cities**

The economist William Baumol has posited what has come to be known as *Baumol's law*: the costs of those goods or services whose production is amenable to technological progress will tend to decline over time relative to the costs of goods or services that are by their nature not so amenable to technological progress. Thus, for example, the cost of education (which relies on traditional classroom teaching, not something that is heavily benefited by technological progress) will tend to increase over time relative to the cost of manufactured goods (whose production can be improved with new tools, methods, and materials). Baumol's law therefore suggests that the price of homes (at least the structure component of home prices) should fall over time.

Yet the actual building costs for which we have records do not show such a downward trend over the whole century plotted in Figure 2.1, although they did from 1900 to the Depression of the 1930s and over the past twenty years. Clearly, at least the spirit of Baumol's law is being followed: home prices have not shown a strong or consistent upward trend before the bubble that started in the 1990s.

Of course land cannot be built; except for a few artificial islands in Dubai and some other suitable places, the quantity of land is fixed forever. But land is just one input into the production of homes, and if higher land prices in urban areas are pushing up home prices, then there is an incentive for builders to find alternatives to heavy use of this scarce resource.

They can build more densely in urban areas. While there are political forces arguing against increased density (notably the owners of existing homes, who see such construction as a threat to their home values), it is hard to believe that those forces can win out in the long run, given the moral argument for supplying people with homes and the persistence of developers in pursuing opportunities to ply their craft.

And there is a great deal of land to expand to. According to the U.S. Census for the year 2000, urban land area accounts for only 2.6% of total land area in the United States. The high value of homes in major cities is accounted for by their location relative to the built environment, not the unique value of the land. That kind of environment can be reproduced by planned and coordinated efforts.

## **Urban Patriotism and Parochialism**

The belief in so-called glamour cities as loci for fantastic real estate investments has a tinge of patriotic feeling behind it. Many seem to consider their own city as possessing an illusory greatness, to an unhealthy extent.

I had the pleasure of giving an outdoor lunchtime talk to an international group of investment professionals at the beautiful seaside resort of Ozdere, near Izmir, Turkey. In these pristine surroundings, with a spectacular view over the Aegean Sea to the Greek island of Samos, where the mathematician Pythagoras and the astronomer Aristarchus once lived, I told them about the incredible loyalty that people

often show to their own homelands. For example, I told them of Californians' feelings about their home state. I explained that they are very proud of their pleasant weather and beautiful scenery. Californians often say "everyone wants to live here." I know they say that in great numbers, because they write it with some regularity on questionnaires I have sent out asking the recipients to comment on the real estate situation in their home states.

I asked the assembled group in Turkey for a show of hands: "Would you really rather be in California?" No one raised a hand. Probably many of these individuals in Turkey have little knowledge of all the beautiful places in California, just as Californians have little knowledge of all the beautiful places in Turkey. The belief that we are constantly being watched (psychologist Thomas Gilovich calls it the spotlight effect) encourages thoughts that one's own city is more desired than it is.

Loyalty to one's city or state may sound like a good thing, and perhaps that is what programs to promote homeownership are supposed to foster. But it also produces speculative bubbles, and California has been the bubbliest state in the United States.

The solution to this problem is to open up the real estate marketplace to the hard glare of market discipline. We must democratize our markets, as I shall discuss in Chapter 6. Turks—indeed people from all over the world—will be more than happy to sell California real estate short during the

next bubble, once markets are liquid enough that they can do so. And that will help prevent mispricings such as those that contributed to the subprime crisis. Such an open market won't prevent all bubbles, of course, but it will most likely enable a system of checks and balances that would prevent a repetition of the extraordinary run-up of home prices, and attendant phenomena in the credit markets, that we have seen recently.

## **Construction Costs: Myth and Reality**

There has been a lot of casual talk during the bubble about “exploding construction costs” in much the same way as there has been talk about running out of land. This talk has fed the impression that we may be running out of building materials, and that this scarcity will make homes much more expensive in the future.

The building cost index that appears in Figure 2.1 does not confirm this scenario, although some other cost measures did show jumps during the bubble, probably reflecting construction bottlenecks. For example, during a housing boom there tends to be a shortage of skilled construction workers, until we eventually train more of them. But the real time period for judging home prices is the long run. Are we really running out of building materials?

The main materials from which dwellings are made today are lumber, plaster, concrete, glass, and steel. How close is the world to running out of these?

Lumber is a renewable resource; it cannot be exhausted. Our principal commercial forests are managed on a continuing basis. Population pressures have not been high in lumber-producing regions. Technical progress has been making the use of lumber more efficient, relying on optimal harvesting rather than clear-cutting, computerized sawmills that reduce waste, improved types of particleboard, and other innovations. Indeed global warming is considered likely, if anything, to *increase* the supply of lumber. Genetic engineering may improve the growth rate of trees.

Gypsum, the main ingredient of plaster and wallboard, is a very common mineral. The White Sands National Monument in New Mexico, famed for its views of massive white gypsum-sand dunes as far as the eye can see, contains 275 square miles of nearly pure gypsum sand. Although this particular site is protected, it is worth noting that White Sands alone would be enough to supply the world's construction industry for hundreds of years.

Limestone, the principal ingredient of the cement used for concrete, represents approximately 10% of all sedimentary rock formations on earth.

Glass is made primarily, and sometimes entirely, from quartz. Quartz is the second most common mineral in the earth's crust.

Iron, the major ingredient of steel, is the fourth most abundant element on the earth's surface, constituting 5% of the surface. It is true that hematite, a popular ore, has

been largely depleted in many countries, and fears of running out of iron were expressed there, especially during the two world wars. But there are many other sources and types of ores. Additional iron can come from the recycling of motor vehicles, bridges, the structural components of large buildings, ships, and other scrap materials.

Any of these building materials, should there be a shortage, could be replaced with others. We can build homes without significant amounts of lumber or plaster, or without concrete, or without steel, or even without glass. In the history of housing, many materials have been used to build homes, including mud, sod, straw, bamboo, paper, snow—even wooly mammoth tusks, bones, and hides. In the future, just as we found substitutes for the wooly mammoth materials, we will find substitutes for any of our current favorites that run short. We can in fact expect to see far more imaginative alternatives than in the past, as technology continues to advance at an ever greater pace.

Of course, the biggest single component of housing construction costs is labor. But with the productivity of labor in manufacturing growing, again thanks to technological progress, at roughly 2% a year, these costs too should decline substantially as a fraction of our incomes.

There are some concerns that shortages of energy or water may inhibit the construction of new homes. To the extent that that is so, it argues for investing in energy or water supplies, rather than homes, which are priced separately.



As the world develops, we are certainly going to be faced with shortages of some things. But it is hard to foresee that housing will be high on the list. The demand for housing is a demand for shelter, a space to have a family and raise children that is close to a job and schools, a place to eat and sleep in privacy. It is a demand for those services, not for any single resource such as lumber or concrete. One of the most basic lessons of economics is that when one resource becomes scarce, people will find substitutes for it. There are so many different resources available to provide construction materials that it is hard to believe that housing services will become relatively more scarce than anything else.

The public, of course, does not understand this basic economic fact. And this lack of understanding has helped produce a massive speculative bubble based on a faulty impression that we are running out of the resources used in home construction.

## **Massive Urban Planning**

The scarcity value that homes convey is due to a perceived scarcity of urban centers. But new urban centers, new towns or cities, can be built from scratch.

The new urbanism movement, which began in the 1980s, has attempted to counter the urban sprawl that represented the chief mode of growth of the built environment in the United States and other countries for the past half century. Suburbs are built up around existing major cities; they lack

effective town centers, spread out so much that they consume large amounts of land, and force residents to rely on the automobile for an increasingly difficult commute into the center city.

The new urbanism as originally conceived was often about building small town and neighborhood centers. More recently some urban theorists have stressed the need to build entirely new large urban centers.

Christopher Leinberger, for example, has argued that there is a significant unmet demand for large, walkable urban centers—little Mannhattans, so to speak. There is high demand, he argues, for well-designed urban centers in general, not just the existing ones. A great many persons like to live in crowded cities, where the vitality of human activity makes for a stimulating life. We are a gregarious species, and most of us are happy to confine our visits to the wilderness to a few well-planned vacations.

People appreciate living in a walkable city, where opportunities of every sort are within a pleasant stroll through an agreeable environment amidst interesting crowds. Some of the world's great cities come to mind: London, New York, Paris, Tokyo. The key idea is to build new ones, and on a large scale. This is a demand that can in fact be met. It requires only sustained and coordinated effort.

There is indeed ample historical precedent for such new urban construction. The creation of new capital cities, built from scratch in relatively rural areas, has set the example.

Washington, D.C., was built in this way starting in the 1790s, and it is now a major metropolis in which property is highly valued. Brasilia, Canberra, and Islamabad were built in the same way. The high urban property values in these cities are proof of the concept: we can build vital, thriving, new urban centers away from the congestion of the existing ones.

There are an increasing number of private examples as well. One is Reston Town Center, near Washington, D.C., built by Robert E. Simon (whose initials form the first syllable of the name of the city). His efforts began in the 1960s, and the Town Center was dedicated in 1990. It is a cluster of high-rise buildings placed in what was then a rural area. It apparently has enough of the qualities of a more traditional city that real estate there has begun to command high prices. And high real estate prices will increasingly promote a supply response, with new urban areas like Reston Town Center being developed to meet demand.

There are more recent examples as well. Mesa del Sol, near Albuquerque, New Mexico, is now being built on twenty-five square miles of undeveloped land by Forest City Enterprises and Covington Capital Partners, and the plans include bringing in jobs and industries that will provide the new city with a unique character. The city will be particularly distinguished by serving as home to film and media studios. It is planned to accommodate residents from all income levels, avoiding the common modern problem of

service workers who cannot afford to live in the city whose residents they serve.

In China, the new city of Dongtan is being built on an island just off the coast of Shanghai. Designed by the British firm Arup, it is planned to be home to half a million people by 2050. It will be a walkable city—indeed the plans call for conventional cars to be banned from Dongtan altogether.

When I was recently in Russia I met an executive involved with the construction of the “*sputnik-city*” of Konstantinovo, which is being built just outside Moscow. (*Sputnik* means satellite in Russian.) At twelve square miles, it is about half the size of Mesa del Sol. It too will be a carefully planned community. Coincidentally its planners are also designing it to be home for film and media studios. The Russian executive I met said that he had never heard of Mesa del Sol, yet the two cities show substantial similarities. Creative minds all over the world are looking at city congestion and doing something about it, ultimately because of the expressed demand, the existence of modern construction technology, and progress in urban design theory.

These new urban projects are part of a long-run trend that will work against accelerating home prices. It is not that there isn't a shortage of land in the places surrounding the areas most people favor today. It is instead that the history of the world has for centuries seen the development of more and more land, the more intensive use of

it, and migration to exploit the availability of land in other areas and other countries. Moreover, world political history has been significantly driven by resentment of the economic inequality that arises from the privileges of property owners at the expense of others. In an effort to address that inequality, land reforms that change the laws relating to ownership have occurred with some regularity.

Indeed the subprime crisis in the United States is itself, in a sense, the result of another such land reform: the U.S. government's intensifying commitment to promote homeownership, a major theme in recent elections. The regulatory tolerance in the 1990s and 2000s of loose lending practices sprang from that policy goal. More generally, the land use restrictions that create wealth for existing landowners and homeowners by preventing new construction are politically fragile, and they tend eventually to be overturned.

At present, there is no foreseeable end to these safety valves that would justify a major home-price surge. By planning around the problems that beset major urban centers, we can create new urban centers that will be, if not quite as big as the old centers, more numerous and in many ways better. These new centers will eventually compete with the old centers and steal much of their value, bringing home prices down in those locations.

## **Short-Run and Long-Run Responses**

There has been a peculiar tendency during this housing bubble (as with other bubbles) to regard price increases as generally good news. When I speak with news reporters of the outlook for declining home prices, I am often told that I am a Cassandra. But it is in no way bad news if home prices fall. If home prices go down relative to our incomes, we become wealthier, better able to invest in new homes. Most of us have children or even grandchildren, and they are usually more numerous than we. We care about them and about others in our society, and we want these others to be able to afford homes in the future. Scarcity is not good news—low prices are.

The idea that public policy should be aimed at validating the real estate myth, preventing a collapse in home prices from ever happening, is an error of the first magnitude. In the short run a sudden drop in home prices may indeed disrupt the economy, producing undesirable systemic effects. But, in the long run, the home-price drops are clearly a good thing.

This short run-long run paradox calls to mind an analogous paradox of Keynesian economic theory: in the short run we fear a sudden increase in the savings rate, which might trigger a recession, but in the long run we want a higher savings rate, because we need the resources for investment for the future.

We must therefore consider the short run and the long run separately, and the policy responses to the two are very different. The next chapter focuses on short-run aspects of

the subprime solution; the chapter after that proposes long-run solutions.

## A Bailout by Any Other Name

Virtually all the solutions to the subprime crisis already tried or already proposed in the United States have aspects of a bailout to them. This is true of the interest rate cuts by the Fed; the Fed's lending to troubled institutions under the auspices of the TAF, the TSLF, and the PDCF; the tax rebate checks mailed out to individuals; the extension of loan limits by the FHA; and the extension of mortgage ceilings by the government-sponsored enterprises Fannie Mae and Freddie Mac.

Let us be clear about what the word *bailout* means. Actually the term has only recently acquired prominence, and the word itself is not yet even listed in the *Oxford English Dictionary*. A bailout is a rescue by the government or another entity of an irresponsible person or entity arising from a failure to follow rules or take reasonable precautionary steps. In the popular use of the term, a parent who offers a late-night meal to a child who refused to sit down at the family dinner, and is now whining about being hungry, is offering a bailout.

The earliest use I could find of the word *bailout* in this sense, from a computer search of English-language newspapers, was in 1950, in the context of criticizing the activities of

the Reconstruction Finance Corporation, established during the Great Depression to rescue failing companies by lending them money. Prior to that, the term appears to have been used exclusively to refer to the act of a pilot parachuting from an airplane in trouble.

Of course, any postcontract government action that invalidates a prior contract or expectation will be called unfair by some. In the nineteenth century the preferred expressions were the “sponge of insolvency” or “premium on hazard and overtrading.” But the term *bailout* is more intense, with its suggestion of abandoning an aircraft in midflight—leaving it to crash and burn on someone else.

The term was rarely used until much more recently, and in its modern meaning it also connotes unfairness and lack of consistency. A bailout is unfair to those who, because they were more responsible, did not get into trouble and thus did not qualify for the bailout. The other child, who followed the rules and sat down to dinner at the appointed time, feels unappreciated. In the case of government financial bailouts, it is ultimately the taxpayer who is typically on the line to pay for the bailout.

The use of the term *bailout* also often seems to connote deception of one sort or another. The parent who is bailing out the one child is hoping that the other child, who followed the rules, does not notice that the disobedient child is getting special attention. The disobedient child offers a phony excuse to justify having missed dinner. The



parent may accept the phony excuse in front of the other child, to justify the bailout and simply keep the peace. The pattern of behavior may even become a sort of unacknowledged secret pact between parent and pampered child. But the obedient child sees the hypocrisy, feels wronged, and may be less motivated to follow rules in the future.

When the subprime crisis prompted the Federal Reserve to cut interest rates sharply to protect failing companies, its actions were necessarily having the biggest effect on the most irresponsible or risk-taking companies, who were near failure. Cutting interest rates provides resources for them, but those resources do not magically appear. They come in part from those who are living off income from funds they have invested in short-term vehicles like money market funds or savings accounts. They will see their income decline. If the interest rate cuts ultimately result in higher inflation, then anyone who has assets denominated in currency terms will suffer. Like the parent giving more attention to the disobedient child, the Fed does not mention who will ultimately suffer as a result of the bailout.

When the subprime crisis prompted the Federal Reserve to launch its TAF in December 2007 to rescue failing depository institutions, it was again aiding some of the less responsible institutions at the expense of others. Even though it takes the form of an auction open to all depository institutions, the TAF does enable the neediest among them to gain help at rates they could not obtain in the marketplace. If the Fed auctions off enough funds—and accepts, at

taxpayers risk, collateral that is so compromised, with an insufficient discount—it is clearly a bailout. Essentially the same goes for the Fed's lending programs, the TSLF and PDCF. With these, the rescue is truly historic, since for the first time since the 1930s it extends Fed bailouts beyond banks that are under the Fed's direct supervision. With these programs the Federal Reserve is offering to take as collateral for loans securities, including subprime paper, for which there is no ready market.

Obviously, if there existed a viable market offering a good price for those securities, the firms would simply sell them on that market. The Fed is offering something unavailable in the marketplace. The Fed is effectively taking a risk by investing in securities that others would not touch. That is a bailout.

Who is paying for this bailout? Of course, if the Fed never loses on this collateral no one will have to pay. But if losses on the collateral mean that there are not enough funds to cover the defaulted loans, this will be reflected in lower payments by the Fed to the federal government, hence ultimately higher taxes for individuals.

There is another sort of bailout that the Fed or other central banks may also be party to in the future. There may be a tendency for central banks to tolerate more general inflation, especially if oil prices create a stagflation. Such a policy would tend to bail out anyone whose balance sheet is compromised by reduced property prices. The bailout

comes at the expense of holders of nominally denominated debt. Such central bank bailouts have a long and established history.

When the Economic Stimulus Act of 2008 was enacted, providing for the mailing of tax rebate checks to individual consumers, to stimulate them to make purchases, this was also, in a sense, a bailout. It was a bailout in part because the rebate checks were sent primarily to lower-income taxpayers, and not at all to higher-income taxpayers. The rebates will have to be paid for by higher taxes for all, predominantly those with higher incomes.

Even disregarding the fact that the rebates were not mailed to high-income taxpayers, they are ultimately a sort of trick—if not an outright deception—relying for their intended result on the inability of most recipients to realize that the rebate check today will result in higher taxes in the future. Therefore the rebate has no real effect on lifetime after-tax income, and it should have no effect on consumption by a rational, far-thinking person.

Lower-income people may rightly suspect that the rebate check is really a gift to them, one that they will never have to pay for in higher taxes in the future. They should spend the money now, expecting further bailouts in the future—and indeed this consumption effect is why the government is giving proportionally larger rebate checks to them.

When the government raised the loan limits for the FHA and the Veterans Administration, and for Fannie Mae and

Freddie Mac, it sounded like a boon for troubled home buyers who could not qualify for a mortgage and for those who could not sell their homes to these buyers at a good price. But what is the ultimate source of that boon? The government is not in the business of creating wealth, merely taking it from one person and giving it to another. Who is ultimately paying for these actions?

Not surprisingly, it is again the taxpayer, and that means the losers are disproportionately those people who have prudently been staying out of the housing market bubble. These government agencies and government-sponsored enterprises are ultimately, if not always officially, backed by the U.S. government. Should these mortgages default in the future, the taxpayer may well be made to bail them out again. That is what differentiates these entities from private businesses, and what makes it clear that this is a bailout.

## **Why Some Bailouts Are Necessary Now**

Despite the unpleasant consequences just mentioned, the principal short-term remedy for the subprime crisis is, unfortunately, some combination of bailouts. Of course, these may not work. Bailouts are focused—and focus public attention—on extreme cases, at the possible expense of the general taxpayer. While they prevent some dominoes from falling, they may also harm general confidence. The use of bailouts may be compared to trying to halt a disease epidemic by lavishing emergency care on the sickest and those nearest to death. But—given the magnitude of the subprime crisis,

and the disproportionate extent to which its consequences fall on the less advantaged members of our society—bailouts must be attempted. It is this component of the subprime solution to which the rest of the chapter is devoted.

Though they rarely use the word *bailout*, governments have long been in the business of managing risk for their citizens. In his 2002 book *When All Else Fails: Government as the Ultimate Risk Manager*, David A. Moss argues that “risk management constitutes a potent and pervasive public policy in the United States. Our economy would be unrecognizable without it.” 注 In fact, financial theorists must always take account of the underlying, unstated risk-management contract that governments around the world have with their citizens and businesses. It would be a serious theoretical mistake to neglect this ubiquitous contract.

Let’s return once more to the metaphor of the child who will not eat dinner at the appointed time. Now imagine that there lives in the same house a grandparent who is suffering from a painful disease or is mentally impaired; perhaps one of the child’s parents is in some emotional distress. Having a child throw a tantrum in this situation would be too emotionally draining on the whole household. A wise parent might indeed bail out the unruly child now, and think later about lessons to be learned.

The dynamics of families and nations are not entirely dissimilar. Many families have long-simmering tensions. Disagreements and resentments can be smoothed over, but they

may reappear from time to time. Old memories resurface. In moments of stress, it is important to avoid harsh statements that will be remembered later—even years later—only to become a source of further conflict.

By the same token, policy makers must strive to prevent economic misfortunes that will create long-standing distrust in our economic institutions. The events of the 1930s are far behind us—at least chronologically. Though we have not forgotten them, we have reached a state of mind where they are no longer emotionally relevant.

The events that marked the start of the Great Depression set the tone for the decade to follow. People with good and apparently steady jobs were cast out and suffered a train of catastrophes, such as losing their homes to foreclosure. Some were left with so few resources that they had to take the humiliating step of standing in a bread line or showing up at a soup kitchen. Middle-aged men were reduced to selling apples on the street to try to make a living. Photographs of those lines, of those sidewalk sellers, were published in newspapers, adding to the humiliation. These images, burned into the national psyche, became symbols of the times, reflecting the shame of a generation.

The trail of evidence of financial wrongdoings led back to the early 1930s, as a huge web of investment companies began to fail. People felt wronged when the banks they had been told were sound were suddenly shuttered—especially if they had not gotten to the banks in time to withdraw their

deposits and were left without recourse. Photographs of long lines of those trying to retrieve their money from failing banks provided yet another vivid image. Anger and disillusionment were added to the emotional mix.

These experiences, and the enduring images they spawned, marked a dramatic change in Americans' inner assumptions. The changes were fundamental, reflecting deep psychological distress. Frederick Lewis Allen, in his 1931 book *Only Yesterday: An Informal History of the 1920s*, remarked that "one could hardly walk a block (at the beginning of the 1930s) in any American city or town without noticing some of them." ② Women's fashions changed: short skirts disappeared and a more formal and less provocative style emerged. Gone was the excited sense that we were entering a new era in which taboos would be abandoned. Romantic and poetic plays and novels reappeared, replacing others that had challenged contemporary values. Admiration for entrepreneurs and savvy businessmen waned. Delight in the then-shocking theories of avant-garde Freudian psychologists became less common. Even religious thinking returned to more traditional forms. The public amusement at religious foibles so evident at the time of the 1925 Scopes trial, when the Bible was put on trial versus the theory of evolution, was fading, and being replaced by a desire to find in religion some comforting interpretation of life.

In 1932 psychiatrist W. Beran Wolfe wrote that a "psychological pall has settled over the whole country...The unemployed American sits at home, listens to his radio if he

has not been dispossessed, stands humbly in a bread line, applies apologetically to a social agency for relief, and, if refused, submits to the most intolerable human indignities. Slave morality has returned.” ④

In the 1930s radical sentiment intensified. In his 1968 book *The Heyday of American Communism: The Depression Decade*, Harvey Klehr detailed how Americans, both workers and intellectuals, began to be won over to communist theories; the 1930s have been called the “Red decade.” Labor-management relations deteriorated into hostility, and labor disputes were unusually intense, sometimes becoming violent. In terms of threats to economic confidence, the current subprime crisis in some ways resembles the onset of the Great Depression.

In his 2007 book *La crise des années 1930 est devant nous*, François Lenglet, the editor of the French business magazine *Les Echos*, sees parallels in the changes in values and customs and in the loss of confidence, even the onset of despair, all reflecting a descent from the euphoria of the bubble years. In good times people are willing to cooperate and accommodate others, but when optimism for the future starts to sour, they can become introverted, angry, fearful, and selfish.

Benjamin Friedman, in his 2005 book *The Moral Consequences of Economic Growth*, cites evidence from world history that, at times when people see encouraging prospects for the future, they are better able to work together



constructively, supporting democratic principles and political and social liberalization. When perceived prospects for growth falter, there are major setbacks.

Friedman points out that in much of the world, particularly Europe, the Great Depression of the 1930s demonstrated all the consequences that his theory would predict: the rise of fascism, anti-Semitism, racism, nationalism, and eventually the outbreak of World War II. But the United States in the 1930s, he claims, “stands out as an exception—in many respects the exception”—to his theory.

④ Somehow a spirit of cooperation and change developed here, ultimately embodied in the New Deal; while there was great unrest, there was also a sense of positive institutional change and progress, which offset the despair of the Depression. Hostility between labor and management, and between rich and poor, was tempered by the sense that we were all moving together toward a more enlightened world.

The differing reactions to the Depression in the United States and Europe had an earlier parallel in the response to the end of World War I. We can see this clearly from the evidence presented in *The Economic Consequences of the Peace* by John Maynard Keynes. The arguments by the victorious allies for heavy reparations from defeated Germany were made without regard for the damage, economic and otherwise, that these conditions would inflict on that country and on national sentiments among both victors and vanquished. Keynes wrote: “Will France be safe because her sentries stand on the Rhine, if her own finances are in ruinous disorder, if

she is spiritually isolated from her friends, if bloodshed, misery and fanaticism prevail from the Rhine eastward through two continents?” 注

History proves that Keynes was right to worry about the social changes brought on by the unfortunate economic arrangements of that time, for they would be among the causes of World War II a generation later. We must always be concerned about public perceptions of fairness and evenhanded treatment, about public confidence that our economic system is moving forward to provide opportunities for all. That confidence is being seriously eroded in today's subprime crisis.

We are at risk that reaction to the current economic crisis could set us far back, economically as well as socially. We must act now to prevent even the possibility that a severe crisis could endanger our comity. Just as less-developed countries need to prevent the global food crisis from endangering the least fortunate people there, so too must advanced countries live up to their duties to protect their own least fortunate. The loss of trust and belief in the economic system can have consequences not only for the economy itself, but for the social fabric as a whole, leading us all to suffer needlessly.

The immediate fix that is needed is similar to that called for by the Great Depression. In the words of Henry B. Steagall, chairman of the House Banking and Currency Committee, in 1932, “Of course, it involves a departure from

established policies and ideals, but we cannot stand by when a house is on fire to engage in lengthy debates over the methods to be employed in extinguishing the fire. In such a situation we instinctively seize upon and utilize whatever method is most available and offers assurance of speediest success.” ②

The fire analogy is an apt one, since the real problem we were facing then, and are facing now, is a sort of conflagration—a problem that spreads rapidly from person to person and business to business. The more serious consequences of the subprime crisis fall into the category of “systemic effects”—effects that will be felt throughout the entire economic system. In medicine, the systemic effects of a trauma are those that involve the whole body, including parts that were distant from the initial trauma. For example, an injury to a limb leads it to become gangrenous, and this will result in death unless the affected limb is amputated.

In economics, systemic effects are all about *externalities*, especially those that show up in extreme circumstances. Often these systemic effects on the economy have to do with investor confidence and psychological or social contagion. The classic example is a nationwide bank run spurred by the failure of a single bank or a small number of banks. When depositors even suspect that they might lose their money, they may withdraw their money from all banks. Even the soundest banks maintain only a fraction of the reserves that would be needed to meet such a catastrophic demand. Fractional-reserve banking involves multiple

equilibria: People trust their banks, and thus the banks come to be seen as trustworthy. But, conversely, if people lose trust in their banks, withdraw their funds, and cause the banks to fail, the lack of trust has become a self-fulfilling prophesy. The jump from one equilibrium to the other is still not easily understood, since it encompasses social contagion as well as economic contagion.

The onset of the Great Depression of the 1930s, which followed the stock market crash of 1929 and infected the United States and other advanced countries around the world, was such a systemic failure. The crisis actually began before 1929—in the housing market. Only later did it spread to the stock market, then triggering a severe banking crisis that had repercussions for almost all businesses.

Economic historian Christina Romer has argued that the onset of the Great Depression of the 1930s coincided with adverse public reaction to the stock market crash of 1929. She finds that forecasters reacted to the economic effects of that crash very differently than they had to the economic downturns of 1920–21 and 1923–24. Right after the 1929 crash, the forecasters, although they did not predict the depression that was to follow, expressed unusual *uncertainty* about the economic outlook. Romer believes that it was this uncertainty that led to the sharp contraction in consumer spending that ultimately caused the Depression.

An economic downturn can ultimately change the nature of political support for economic policies—even to the point of

exacerbating the downturn. One consequence of the strengthening of pro-labor sentiment during the Depression, as argued by economists Harold Cole and Lee Ohanian, is that government policy encouraged firms to accede to union demands, even if those demands were really for the benefit of insiders and at the expense of the outsiders—those who were currently unemployed. The National Industrial Recovery Act of 1933, one of the less inspired innovations of the New Deal, gave the president the power to allow firms to collude on prices so long as they raised wages and accepted *unions*. Even after the act was declared unconstitutional in 1935, the Roosevelt administration continued to be lenient in bringing antitrust actions against firms that were compliant with union demands.

There is today the possibility of what, in *Irrational Exuberance*, I called an attention cascade, leading us to start worrying about possible economic problems that had left our consciousness. In an attention cascade, economic events or problems become the subject of more and more talk and of stories in the media, until they come to dominate public thinking. The changes are qualitative—taking the form of greater salience of certain stories, theories, and facts—and are not measured by the various consumer confidence indices that are so widely disseminated. In fact long-lasting and severe changes can take place before conventional economists have any clue about them.

The subprime crisis was not on the list of possible scenarios for which we might have made plans. We are stuck

with contractual arrangements that were made in error. Although many were clearly lured into financial deep water by the prospect of easy money and quick riches when they should have exercised greater prudence, others are in trouble through no fault of their own and are resorting to desperate fixes. Much as we might like to, we cannot quickly and reliably sort out who is at fault and who is not.

I emphasize that the possible *systemic effects* are much more important than the loss of home values in a potential collapse of the real estate market. For however much home values may drop, they will still remain the same homes, offering the same services to all of us. But if the rate of output in the economy falls, that is a real loss, not just a paper one. The balance sheet problems into which people fall if their homes lose value are purely financial losses. But they can be converted into substantial *real* losses to the economy if they are allowed to destroy public confidence.

In a financial system seize-up such as the one we are now experiencing, we must, putting aside our political and policy differences, fall back immediately on a more basic social contract—one that dictates that we as a society will protect everyone from major misfortune and keep existing problems from spreading further, subject to the dictates of common sense. That social contract is our most valuable protection, for we as a society can never plan for all possible contingencies.

Indeed bailouts of one sort or another have been part of the underlying stabilization mechanism of economies, ours as well as those of other countries, for centuries. The Federal Reserve has been bailing out troubled banks since it opened for business in 1914. The Bank of England has been doing the same for hundreds of years. We must face up to the fact that we have not been able to avoid bailouts in the past, and we cannot do so today.

While it is natural to emphasize the unfairness of bailouts to those who do not receive them, judgments of what is fair and unfair are far from clear-cut. There is an inherent unfairness in our economy, evidenced by its sharp income inequalities. Some of this represents vestigial effects of injustices of long ago, notably the importation of blacks to the United States as slaves. To this day, black Americans as a group have not completely managed to shake off the economic aftereffects of this history of oppression.

The FHA, as well as such government-sponsored enterprises as Fannie Mae and Freddie Mac, in their role as subsidizers of housing for those with low incomes, can be viewed as rectifying at least some of the income inequality in our society. Moreover, subsidizing low-income housing probably has positive social externalities whose value is incalculable. There is a better prospect for social harmony if some of the more marginal members of our society feel invested in its success through ownership of their own homes. If this is a time for increased bailouts of those with low incomes, then maybe that is all to the good. Perhaps the

subprime crisis is sharpening our social conscience, if only in indirect ways.

## **A New Home Owners' Loan Corporation**

We need a new organization modeled after the Home Owners' Loan Corporation that was established in 1933, during the last major housing crisis, to make credit more readily available to home borrowers. By the time this book reaches print, there is a chance we will already have some aspects of such an organization in place or at least in the works. Plans along these lines enjoy strong support, including the backing of economists such as Alan Blinder and Martin Feldstein and legal scholars such as Michael Barr. Yet the prospect of congressional action on this proposal remains highly controversial, and it is best considered as still nothing more than a proposal. Any action eventually taken by Congress may be watered down or handled ineffectively, and, even if it does act meaningfully, Congress may not respond in the future with sufficient additional funds for the institution if the subprime crisis worsens.

The HOLC accepted mortgages as collateral for loans to mortgage lenders, so long as the mortgages had more enlightened terms than were customary at the time. In that way the HOLC both dealt with the immediate problem of foreclosures and also encouraged longer-term economic innovation. That is what a new HOLC can and should do today.

It is essential that the potential cost of bailouts be paid by the broad public, and that it not be dumped into the



laps of a small set of investors. Ben Bernanke has been widely described as asking our nation's bankers to write down the principal on millions of mortgage loans. What he *really* said was that principal writedowns “could be in the best interest of both borrowers and lenders.” ④ Of course, some limited writedowns are in the interest of lenders: if a lender fails to improve the mortgage terms for a troubled homeowner, then the owner may simply abandon the property, often in damaged condition, thus imposing substantial legal costs and delays on the lender. Lenders understand very well that it is in their own interest to keep homeowners in place if there is reasonable hope they can pay on somewhat reduced terms. Bernanke is rightfully concerned that his language not suggest that some unfortunate group of investors should bear the cost of dealing with systemic effects on the U.S. economy. But by limiting his attention to actions that would mutually benefit borrowers and lenders, he is proposing only that lenders should continue to do what they already do. His talk is not effective in dealing with the subprime crisis because it carries no economic weight.

U.S. Senator Christopher Dodd (D-CT) proposed a federal Homeownership Preservation Corporation that would be a modern-day version of the HOLC. Dodd later dropped the idea of such a new corporation, but in a press conference he and U.S. Representative Barney Frank (D-MA) together spoke of empowering the FHA to guarantee up to \$300 billion in refinanced mortgages to distressed borrowers. They did not describe this as a bailout or a burden on taxpayers—but of

course it has the potential to become one if default rates turn out to be high.

It may be better to create a new agency, like Dodd's now-withdrawn Homeownership Preservation Corporation, rather than merely extend the financing of the FHA, because a new organization is more likely to do more than just funnel money to mortgage lenders. A new agency is more likely to attract leaders interested in fundamental change; creating such an agency is a way of signaling serious intent to solve the subprime problem. We need to see other aspects of the HOLC solution implemented now as well. In particular we need to see our reborn HOLC establish new mortgage-writing conventions, as I discuss in the next chapter.

## **Getting the Short-Run Solutions Right**

Just as important as the specific short-run solutions to be implemented is the underlying mindset. We must get these solutions right, and get them right the first time. This means facing up to the scope of the problem, allocating sufficient resources to solving it, and setting the correct fundamental policy goals.

If any of the short-run solutions discussed here are to have a chance of success, our leaders must, in the first place, admit that a serious problem exists. It does not help matters if leaders continually assert that a turnaround is just around the corner. That was the strategy played by Herbert Hoover during the Great Depression, and it has been trotted out by virtually every leader in government and

business since then when faced with the necessity of truly fundamental reform. Such an attitude only leads to accusations that those in charge are attempting to manipulate the public mind through the power of suggestion.

We have to be ready for the possibility that many more tax rebates will be necessary, perhaps for years to come. These rebates may eventually have a significant negative impact on the national debt. That possibility can be accepted only if we truly recognize the seriousness of the problem.

We need to pay attention as well to the capital adequacy of banks and broker-dealers, who are likely to come under increasing pressure if, as is likely, there are continued substantial falls in home prices, further impairing their assets. Their inadequate capitalization will be evident to everyone with whom they do business, and this will lead to further freeze-ups of the system, which may spread rapidly in a worsening crisis.

We must be willing to devote sufficient resources to doing the bailouts right. Leaders should face the fact that they are bailouts and get on with carefully and calmly explaining the reason for them. Only then can enough money be spent on them to have the desired effects.

Setting the proper policy focus is also crucial. The purpose of the bailouts should *not* be to maintain high values in the housing market, the stock market, or any other speculative market. The essential purpose is to prevent a fundamental loss of economic confidence in our institutions

and in each other, and to maintain a sense of social justice. As such, the bailouts should focus most intensely on preventing distress among people of modest means.

With regard to housing prices, government policy should be just the opposite of supporting them. We need more planned large urban centers, and building more of these would increase supply and thereby bring urban home prices down. The framers of the 1968 Housing and Urban Development Act understood this need, and the act set up a mechanism whereby builders of whole new towns could apply to the Department of Housing and Urban Development for support. That legislation has led to some new urban centers, but the act was not enough, and legislation is needed to support development of new urban communities.

In terms of the immediate crisis, the problem is quite different. We have to be willing to spend money on securing economic justice. That means allocating resources to determining—to the extent that this is possible—who among mortgage borrowers were misled and mistreated, and then focusing the bailouts on them.

Certain nonprofit organizations, such as Self-Help ([www.self-help.org](http://www.self-help.org)) or the Neighborhood Assistance Corporation of America ([www.naca.com](http://www.naca.com)) provide for assistance to individual homeowners to help them work things out. But the resources of these organizations are dwarfed by the scale of the current crisis. The government's Hope Now initiative is failing to provide enough solutions

because it really has no official resources; it is merely a government-led alliance of businesses. If home prices continue to fall, many more homeowners will be in trouble in the coming years, amounting to a very expensive problem and putting even more stress on an already inadequate system.

The government can spend money now to reorganize the system of bailouts so that it operates on a more systematic basis. A new HOLC could tackle the expensive and complex process of modifying individual loans, rewarding those mortgage lenders who will spend the time and energy to help individual borrowers understand their specific situations and make government assistance available to those who qualify.

After we have succeeded in preventing the subprime crisis from escalating, we must turn to the long-term solutions that will prevent a recurrence of the situation in which we find ourselves. That aspect of the subprime solution is the subject of the next chapter.

## The Promise of Financial Democracy

The key to the subprime solution, to preventing future crises like the current one, as well as mitigating its aftereffects, is democratizing finance—extending the application of sound financial principles to a larger and larger segment of society, and using all the modern technology at our disposal to achieve that goal.

Doing this will reduce the long-run incidence of speculative bubbles like the housing bubble that we have just experienced. And to the extent that such bubbles still occur, it will establish a rational context for responding to them, instead of the after-the-fact scurrying for quick fixes that we have seen since the onset of the subprime crisis in 2007.

There used to be tremendous instability in the banking sector. For example, there were severe U.S. banking crises in 1797, 1819, 1837, 1857, 1873, 1893, 1907, and 1933. Those problems were largely fixed by a number of institutional changes over the years, notably the creation of the Federal Reserve System in 1913 and the New Deal reforms of the early 1930s. But effective reforms haven't reached all segments of our economy, especially the household sector, which continues to limp along with practically medieval financial insight. Unless we think more broadly about financial reforms that will encompass the majority of households, we will continue to experience crises.

As the events leading up to the subprime crisis make plain, it is remarkable that the imperfections of our basic economic institutions have not been more widely discussed. While markets bubble and burst, most people have only minimal protections against their biggest economic risks, hold dangerously undiversified portfolios, and risk ruin when they lose their jobs or fall ill.

These problems are regarded as inevitable features of the system, and the system itself is considered impervious to

reform, as if it were a product of nature. But successful institutional reform efforts such as those of the New Deal era belie this widely held orthodoxy. Basic institutional reform is not only possible but necessary.

The subprime crisis has revealed a poverty of imagination on the part of leaders in initiating the reforms needed to build the new institutional foundations for a more secure economic environment. This chapter suggests ways of beginning just such an institutional reform initiative.

## **It' s the Technology**

Institutional reform starts with understanding the available technology. *Information technology* is the story of our time. It is key to the subprime solution. The continued growth of computers, data collection and processing capabilities, “smart” technology, and rapid, inexpensive communications all provide dramatically effective tools to implement the subprime solution—to correct some of the egregious faults in the economy’ s institutional foundation.

Along with this expanding information technology, there has been over recent decades a magnificent development of our knowledge in the field of mathematical finance. The field has captured the imaginations of mathematically inclined people, from traditional economics departments, to mathematics departments, to management schools, and now to engineering schools with their new financial engineering programs, and to numerous quant groups at investment banks and hedge funds. This theory, as part of economics, in turn allows us to

harness the full potential of risk-management technology—especially when it is implemented on a sufficiently large scale, as our information technology now allows. The theoretical advances are important, for they tell us where and how to look for opportunities to use financial technology to advance human welfare.

Mathematical finance theory helps us understand how *both* sides of a financial contract can benefit from the contract, and it suggests how we can optimize the participation of the two sides so that human welfare as a whole is enhanced. We must rely on such theory if we are to avoid inconsistent and erratic policy proposals to deal with crises, such as capriciously awarding bailouts to some without properly considering the context, the appropriate incentives, or who is on “the other side,” paying for the bailouts.

Modern financial theory has as an important component in *agency theory*. Agency theory explains how to motivate agents to behave as much as possible in the interests of *all* parties to a transaction, not just themselves. It is a theory that explains how to keep moral hazard under control by structuring financial institutions with just the right balance of incentives.

In a similar vein, the human sciences—psychology, sociology, anthropology, and neurobiology—are increasing our understanding of the mind by leaps and bounds, and this knowledge is now being applied to finance and economics. We have a much better grasp of how and why people make economic



errors, and of how we can restructure institutions to help avoid these errors.

There has been an important revolution with the development, in the past few decades, of the field of behavioral economics, including behavioral finance. This discipline incorporates insights gained in other social sciences. For that reason, many financial theorists of the old school have resisted this revolution, for they fear that it renders their mathematical models useless. On the contrary — it opens up their models to far richer and more successful applications.

Denying the importance of psychology and other social sciences for financial theory would be analogous to physicists denying the importance of friction in the application of Newtonian mechanics. If one is permitted to apply Newtonian mechanics only in realms where friction can be completely disregarded, then one is confining its application largely to astronomy. Once we add a theory of friction, Newtonian mechanics can begin to be applied to earthly problems as well, and it becomes an essential tool for engineers who are designing devices to improve our daily lives. We have a comparable opportunity today with the advent of behavioral economics, which has the potential to facilitate exciting advances in *financial* engineering.

New institutions can be developed to solve many of the world's fundamental risk problems. But, as noted previously, this can be achieved only if the institutional foundations

are retrofitted to produce greater economic growth through steadily expanded asset ownership—especially homeownership.

What follows is a package of proposed reforms that leaders—government, civic, and business, both here and abroad—can forge into a new institutional foundation for the housing market and other asset markets. Taken together, these proposed measures resonate with the spirit and letter of the reforms introduced during the New Deal era as a response to the financial failures of the 1930s, and with other institutional reform initiatives, such as the Basel II reforms deployed to secure today's international banking system.

Since these proposals in some cases represent significant departures from established practice, there will be those who will doubt that they can ever be put into practice. But we have to remember that the history of finance is one of periodic major breakthroughs in method and form. These breakthroughs have often happened at times of financial crisis, just as the innovations of the New Deal era occurred during the Great Depression. And the time for further institutional innovations is now right.

The changes proposed here are significant, but a number of them have been tried on a smaller scale, and all are distinctly within the realm of possibility. The net effect of this package of reforms would be to stress-proof the whole economy, building greater ballast into the institutional framework so that buyers and sellers are better able to

conduct business with confidence rather than through desperate speculative moves.

## **A New Information Infrastructure**

Promoting an improved information infrastructure—the knowledge base used by people and firms to manage their financial affairs—is not only good policy but also good economics. According to economic theory, information that is freely available is a public good, which tends to be undersupplied by the private sector. Moreover, the lack of information can have systemic effects, a negative externality that government should try to prevent. Strengthening the information infrastructure would have a fundamental impact in altering the social contagion and information cascades that underlie the formation of speculative bubbles.

Government promotion of a fundamentally improved information infrastructure can capitalize on the advances we have made in recent years in both information technology and behavioral economics. Thus far some apparently promising innovations in information technology have proven unsatisfactory in practice because they have not been properly human-engineered. For example, public use of financial planning web sites, the financial engines, while growing, is still not widespread. This is probably the case because people tend not to take action on important financial matters based on information that is provided to them only by computer. They must talk to a person before they make major changes in their financial behavior. Behavioral economics

offers many such lessons for the proper use of information technology.

In this section I consider six major ways of improving the information infrastructure: promoting comprehensive financial advice, establishing a consumer-oriented government financial watchdog, adopting default conventions and standards that work well for most individuals, improving the disclosure of information regarding financial securities, creating large national databases of fine-grained data pertaining to individuals' economic situations, and creating a new system of economic units of measurement.

### **•Comprehensive Financial Advice**

Low-income individuals who took out risky subprime mortgages, with interest rates that would soon be adjusted upward, were often unaware of the known risks inherent in such mortgages. They had no clue that there was a real risk that, in the event of a crisis, they would not be able to refinance their mortgages. Why not? Because there was little economic impetus to provide such information through established communication channels. Thus these new homeowners unwittingly assumed hazardous risks.

Financial advice magazines did indeed report on these risks. So, while the higher-income subscribers to those publications got the story and stuck overwhelmingly to conventional fixed-rate mortgages, many lower-income people were left with personal tragedies.

The first step in correcting this failure of public education is to promote comprehensive financial advice for everyone through institutions that will make sure that all individuals, not just the most wealthy, receive such advice. Most financial advisers ignore middle- to lower-income customers because they can make money only by charging a fee based on the fraction of assets under management or by receiving commissions contingent on the purchase or sale of a security—income available only through servicing wealthier clients. As part of their efforts to operate efficiently and profitably, many financial advisers also streamline their practices, limiting their advice to narrow windows, such as portfolio management advice or tax strategies.

Most people *need* broad elementary financial advice, and they need to get it from knowledgeable and trustworthy sources. Unfortunately only wealthier people feel they can *afford* such advice.

The alternative is for financial advisers to offer their services for a flat hourly fee, in much the same way as do other professionals, such as lawyers or accountants. The National Association of Personal Financial Advisors has a sound approach to the problem. It requires its member advisers to sign a fiduciary oath not to accept remuneration from third parties for the sale of financial products or for referrals. But it remains a relatively small organization. Meanwhile, most other financial advisers have resisted the move to fee-only practices, for the simple reason that there

is not enough demand for such services at the prices they would have to charge.

As a result, low-income people are left with only biased sources of advice. For example, when they are home buyers, they typically deal with a real estate agent and a mortgage broker. The real estate agent represents the seller of the house and thus has an incentive to make the sale happen at a good price for the seller. The mortgage broker has an incentive to arrange a loan that carries a high interest rate. Moreover, mortgage brokers who may appear to be helping their clients obtain a mortgage at the best rate are often, unknown to those clients, collecting fees from the lenders.

The U.S. government in effect subsidizes financial advice by making it tax deductible. But this tax deduction works only to encourage high-income people to seek out financial advice. People in low tax brackets do not benefit significantly from itemized deductions and thus usually do not itemize. Moreover, the deduction for financial advice is a miscellaneous deduction, which, even for those who do itemize, is deductible only to the extent that the sum of such deductions exceeds 2% of adjusted gross income. Thus low-income taxpayers have little or no tax incentive to pay for financial advice.

The government needs to reverse this bias and effectively subsidize fee-only, comprehensive, independent financial advice for everyone. One way to do this would be to set up a co-pay arrangement like that already in place for Medicare,

Medicaid, and private health insurance plans, under which the practitioner can apply for partial reimbursement of fees. The analogy to health insurance is apt: we need both medical and financial advice on an ongoing basis, and failure to obtain either ultimately imposes costs on society when our health—medical or financial—suffers. Another form of subsidy would be to switch the current incentive for financial advice from an itemized deduction to a refundable tax credit that is obtainable upon filing one's income tax return, even if one does not choose to itemize.

Qualification for the subsidy should require that the adviser sign a statement that he or she will accept no other remuneration from third parties for this customer, so that the advice rendered is impartial. Professionals who collect commissions for selling financial products are certainly providing a helpful service, for otherwise many useful products would not reach their intended markets. But their commissions—and their current tax deductibility on personal income taxes via basis calculations for capital gains—ought to be incentive enough for them to pursue such commission-based sales without having their fees further subsidized by the government.

What if, when they were buying their homes in the run-up to the subprime crisis, low-income people had had access to good-quality, comprehensive financial advice, delivered to them one-on-one, Suze Orman-style, by trusted advisers? The crisis might never have occurred. While the true magnitude and extent of the housing bubble may not have been apparent

to many financial advisers as it was happening, most of them must at least have had some sense that the housing boom might not continue. Surely they would have known when a low-income family was taking on excessive risk with an adjustable-rate mortgage or a mortgage that was simply too large for their income.

Another example, from after the bursting of the bubble, will illustrate the necessity for financial advice that springs from a pure incentive to help the client, and compensation based solely on the time taken to do so. Today, with falling home prices, many elderly people who need care and special services are postponing moving to a continuing care retirement community (CCRC) because they are unwilling to accept the loss of value of their homes if they sell now. They need to sell their houses before they can move into a CCRC, in order to be able to pay the entrance fees, but they are worrying about the decline in home prices and are thus deferring this important step. Many of them will hold out for years, hoping to sell their homes at a better price, and this trend is already being reflected in high vacancy rates in CCRCs today. Thus these elderly homeowners may go for years without proper care, often in isolation and loneliness. All they really need is to have a trusted counselor, expert in the specialty of elder finance, who will, for an hourly fee, consider all aspects of their situation—including health needs and tax consequences—and put things into perspective. Losing, say, \$30,000 on the quick sale of a house in a slow market may in the final analysis be the right thing to do, given their other concerns.



There is, of course, the question of how many will actually avail themselves of financial advice, even if its cost is reduced considerably. We will only know the answer is reduced considerably. We will only know the answer if we set the subsidy in place. If we provide the impetus for a new financial advice industry by subsidizing it, the hope is that its practitioners will find new marketing strategies, new delivery channels for their advice, or new means of bundling their advice with other products and services—strategies designed to induce people who have never before done so to start using personalized financial advice.

If government makes the business of providing such useful and impartial advice economically viable by subsidizing it, then it is likely that business will make the necessary investments to deploy new information technology on a significantly expanded scale. The provision of low-cost financial advice would be a natural application for such technology. The financial engine web sites will be reinvented so that they operate hand-in-hand with the personal advice furnished by advisers, and thus work effectively for most people. These sites might further evolve, wiki-style, into places where people can share financial information with each other and with a variety of experts.

If we reform our tax policy to subsidize the services of fee-only, comprehensive financial advisers, technology will carry us forward into new dimensions of democratized financial sophistication that we cannot now imagine.

## •A New Financial Watchdog

The second step in correcting the inadequacies of our information infrastructure, as outlined by legal scholar Elizabeth Warren, would be for the government to set up what she calls a financial product safety commission, modeled after the Consumer Product Safety Commission. Its primary mission would be to protect the financial consumer, to serve as an ombudsman and advocate. It would provide a resource for information on the safety of financial products and impose regulations to ensure such safety. Remarkably, such concern for the safety of financial products is not the primary charge of any major financial regulatory agency in the United States today.

The National Highway Traffic Safety Administration maintains data on highway and motor vehicle safety and statistics on accidents. In the same way, we must fund a government organization empowered to accumulate information on the actual experience that individuals have with financial products—and the “accidents,” rare as well as commonplace, that happen with them—with an eye toward preventing such accidents in the future.

The U.S. Treasury’s 2008 *Blueprint for a Modernized Financial Regulatory Structure* (Henry Paulson, Richard Steel, and David Nason) proposed a business-conduct regulator that resembles Warren’s financial product safety commission. The proposal emphasized that the domains of regulatory authorities should be defined in terms of their objectives—

and consumer protection is indeed plausible as the domain for a separate regulatory agency.

## **Default-Option Financial Planning**

The third step in renovating the information infrastructure is to set up standardized default-option financial plans that operate well when people are inattentive and fail to act. A default option is the choice that is automatically made if an individual fails to make an intentional choice among available options. One might say that the fundamental cause of the subprime crisis was that many people simply did not pay attention. They fell into traps of one sort or another because they did not know or understand what was happening in the marketplace. When their attention lapses, consumers are more likely to accept whatever financial contract is offered first, or seems standard or conventional. Therefore designing standard contracts, including prudent default options, should be a serious enterprise for both government and business. Careful research has revealed how immensely susceptible people are to whatever they see as standard provisions in their decisions about investments.

The economist Brigitte Madrian and her colleagues studied how individuals choose whether to participate in an employer-sponsored retirement savings plan. They found that automatic enrollment of the employee in a retirement plan boosts participation immensely, even if the employee is free to drop the plan at any time by merely asking to opt out. Moreover,

employees in these plans typically accept the default-option contribution rate and portfolio allocation that are built into the plans. Because of such research, the U. S. Congress decided to encourage such plans, and the Pension Protection Act of 2006 paved the way for widespread adoption of such plans.

Richard Thaler and Shlomo Benartzi have argued for a “Save More Tomorrow” plan that deducts from paychecks automatically from any increases in pay for deposit into a saving plan, and this helps overcome employee inertia in starting a saving plan. ④ Their plan also received a boost from the Pension Protection Act of 2006, and has now been adopted by thousands of employers.

The government can do much more along these lines to encourage the ultimate democratization of finance. The help of the government is needed as a facilitator of progress in the private sector. I noted in Chapter 1 that one of the great innovations to come out of the housing crisis of the Great Depression was the extension of mortgage terms from the then-common period of five years to fifteen years or more, providing borrowers with a greater cushion of time to pay off their mortgages. The change was made by the Home Owners’ Loan Corporation in 1933, and, while that government-sponsored enterprise no longer exists, its legacy lives on today in the form of long-term mortgages. Why didn’t the private sector make the adjustment itself, without government intervention? The answer apparently lies in the difficulty of introducing new products in the face of initial buyer

resistance and entrenched social norms. The cost of educating the public about the wisdom of a new form of mortgage is a type of public good, yet the private firm that incurs it may never fully recoup the cost, since the benefits will be shared by all firms that choose to offer the new mortgage.

This calls for the authoritative assertion of new standard boilerplate for common contracts such as mortgages. Most individuals will accept a standard contract if it is put forward by those whom they consider experts, and they will not try to judge the issues for themselves. A new HOLC could, as we shall discuss below, make improved mortgage contracts the standard by accepting as collateral for loans to mortgage lenders only mortgages including the new features. Such a standard-setting enterprise by the new HOLC would in turn be likely to drive an array of other financial innovations, such as the development of derivative markets for income risks and home-price risks.

In the subprime crisis many mortgage borrowers blandly accepted the mortgage terms that were offered them, in many cases likely thinking that these somehow had the imprimatur of experts—even when no consumer protections whatsoever were in place. Changing the standard mortgage contract would thus constitute a huge improvement in the information infrastructure. And reform in this area might encourage a concerted effort by experts in business and government to decide on other kinds of financial advice and improved mortgage products that could be made standard and generic for most people, thereby democratizing the information available

to consumers. Other mortgage products could certainly still be developed, for those borrowers who might take the initiative to go beyond the default option.

Another possible default option would be a requirement that every mortgage borrower have the assistance of a professional akin to a civil law notary. Such notaries practice in many countries, although not in the United States. In Germany, for example, the civil law notary is a trained legal professional who reads aloud and interprets the contract and provides legal advice to both parties before witnessing their signatures. This approach particularly benefits those who fail to obtain competent and objective legal advice. The participation of such a government-appointed figure in the mortgage lending process would make it more difficult for unscrupulous mortgage lenders to steer their clients toward sympathetic lawyers, who would not adequately warn the clients of the dangers they could be facing.

### **Improved Financial Disclosure**

The fourth step in enhancing the information infrastructure is to improve the disclosure of information that is relevant to people's financial and economic lives. Apparently almost no one had an economic incentive to do the investigative work to unearth and interpret information about the off-balance-sheet accounting that eventually doomed the Enron Corporation in 2001. Nor was there anyone with an economic incentive to reveal the excesses of the structured

investment vehicles that banks were using to move certain risks off their balance sheets before the 2007 crisis. Word never got out in a way that was useful to the broad public.

Those who bought residential-mortgage-backed securities based on subprime mortgages typically did so with little more information than that contained in the ratings given them by rating agencies. And while the rating agencies themselves release additional information, the ratings are the only easily interpreted and compared pieces of information, and even these are released only with caveats.

When John Moody in 1915 offered to the public the securities rating system (with letter grades like Aaa) he was making an early step toward democratizing finance by providing a reader-friendly disclosure of information. Disclosure of financial information took another step forward in the United States in 1934 with the creation of the Securities and Exchange Commission. The SEC now sponsors a web site called EDGAR that provides detailed information on public securities and the companies that issue them, including real-time access to filings made with the SEC. When SEC Chairman Arthur Levitt in the late 1990s brought plain English into securities documentation he too was democratizing finance and improving disclosure. The effectiveness of that disclosure was further enhanced in 2000 with the SEC's issuance of Regulation Fair Disclosure (Regulation FD), which directed firms to post their announcements electronically and immediately, thus making

material information available at the same time to all investors, large and small.

Despite the significant strides the SEC has made in making information available to the public, however, people still find it very difficult to evaluate the risk of securities. Thus the subprime residential-mortgage-backed securities were grossly misjudged because no one outside the rating agencies understood the information to correctly gauge the soundness of the mortgages on which they were based. The stage was perfectly set for unscrupulous mortgage originators to lend to lowincome people who were likely to default, and for mortgage securitizers to sell the soon-to-default mortgages off to unsuspecting investors.

There have been important proposals for enhanced disclosure, but there has been little action. ⑨ Both government regulators and private information providers have to think much further how we can provide real understanding to the public about securities. As information technology continues to advance, the costs of providing information continue to fall, and the scope for creative and meaningful disclosure, at constant or even declining cost, should generally widen over time.

This means developing creative new presentation modes, going beyond the traditional securities ratings. There should be more simple, standardized disclosure modes, analogous to the standardized nutrition labeling on packages of food, that make it very easy for people to assess risks.



In his 2001 book *Republic.com*, legal scholar Cass Sunstein argued that the requirement for electronically disseminated disclosures, modeled after the SEC's, should be expanded to cover many other organizations whose activities could possibly affect the climate of our communications. The required disclosure of questionable activities can sometimes be enough to stop undesirable activities in their tracks. Sunstein wrote of the importance for a democratic republic of exposure to a broad spectrum of information: "To be sure, such a system depends . . . on some kind of public domain in which a wide range of speakers have access to a diverse public—and also to particular institutions and practices, against which they seek to launch objections." ⑨

In our age of electronic communications, mandatory disclosure of information is more feasible than ever before. A business conduct regulator, such as proposed by Henry Paulson and his Treasury colleagues, could require mortgage lenders and other financial firms that interact with the general public to disclose on the Internet activities that appear questionable—such as predatory lending—thus opening them up to public scrutiny.

## ·Improved Financial Databases

The fifth step toward an improved information infrastructure is for the government to subsidize the creation of large economic databases on both individuals and all firms, under a protocol that allows this information to

be used to develop risk-management contracts and at the same time assures privacy.

We have already seen the development of large private databases of information on the incomes and economic activities of individuals, but these databases are fragmented and rarely used for good economic purposes. No one has the whole financial picture; only pieces are visible. A protocol for the sharing of information among such databases needs to be developed, so that the current fragmented sources can be pooled. The enlarged pool of data should then be used for beneficial purposes, such as providing consumers and homeowners with more accurate pictures of their financial situations. Such enlarged databases would permit the financial engine web sites to offer customized, real-time information to their customers— information that relates to their particular circumstances.

Large publicly available databases of privacy-protected data on individual incomes are a real possibility, given that income taxes are now largely filed electronically. It is already possible for an individual in the United States to make information on his or her tax return available to financial counterparties by filing Form 4506-T. The government would of course have to take the next step, making identity-protected information appropriately and widely available for the public good. Other databases could be linked to the income database. This would permit, for example, the construction of an array of up-to-date and specific personal income indices by occupation, demographics,

or health status. The data could then serve as the basis for the settlement of individually tailored risk-management contracts, such as the livelihood insurance described below. Risk-management engines could access the complete, fine-grained picture of the nation's economic situation—a degree of transparency that remains impossible today. A whole new world of risk management would be opened up.

Improved databases will permit the development of better measures of ability to pay in the case of mortgage workouts. Given our constantly improving information technology and expanded financial databases, we ought to be able to see econometric advances that make this possible. Indeed, in just the past twenty years, credit-history-based econometric measures of ability to pay, notably the FICO score, have emerged as major forces in the lending industry. But the FICO score is not responsive to general economic conditions and is not used systematically to adjust repayment schedules. FICO is ultimately limited by the scope of the database that supports it. A whole new world of such measures could be made available for use in a democratized system of financial contracting.

## **•A New System of Economic Units of Measurement**

So many people find understanding our economic system a challenging task. To help them, the government needs to set up a new system of economic units of measurement. This part of the subprime solution would be a truly revolutionary step, akin to the creation of the metric system after the French

Revolution. Such a system would help prevent human error in economic thinking, which underlies many economic problems, including the subprime crisis.

Units of measurement would be defined for many common economic values, including income, profits, and wages. But of greatest importance would be new units of measurement for inflation.

I have been arguing for years that we can help avoid confused thinking about inflation by adopting an inflation-indexed unit of account, like the *unidad de fomento* (UF) that the government of Chile created in 1967 and that has since been adopted by other Latin American governments.

The UF is just the daily price of a market basket of goods and services, as measured by an interpolated Chilean consumer price index. But it has been singled out for publication by the government as a unit of account for commerce, replacing money. People in Chile commonly quote prices in UFs, although they still make actual payments in pesos using the peso-UF exchange rate (which is commonly available, in particular on a web site). By giving this unit of account a simple name, encouraging people to use it as a standard of value for commerce, and training them to think in indexed terms, its government has made Chile the most inflation-aware country in the world.

In contrast, the traditional currency units used by countries all over the world are a poor measure of value, since their buying power changes unpredictably over time.

Measuring value in pesos or dollars is like measuring length with a ruler that expands or contracts from year to year. Engineers would find design a daunting task indeed with a meter rod that changed constantly—but that is exactly what people have to contend with when they deal in terms of money. No wonder they become confused. In the modern information-rich economy, there is no reason why the medium of exchange and the unit of value measurement need still be the same.

I would give these inflation-indexed units a simple name, *baskets*, to make clear that they represent the value of the market basket of goods and services upon which the consumer price index is calculated. If sellers name their prices in baskets, they are effectively asking to be paid in terms of the real goods and services that underlie the consumer price index—to be paid in real things rather than unstable currency. When we have a simple word to describe inflation-indexed quantities, even young children will learn to do inflation indexation, merely by using the word.

The government should write the tax code in terms of baskets, rather than dollars, to fully index the tax system and to force people to learn the new units. Credit card point-of-sale terminals and other electronic payment systems could be programmed to accept payments in baskets.

If people had become accustomed to such inflation-indexed units of measurement, the recent housing boom might have been averted. One of the most significant errors that have infected the housing market in recent decades has been the

failure on the part of the general public to understand inflation. The governments of the major countries of the world have been publishing consumer price indices for nearly a century now, and the public at some level is able to use them. But confusion about inflation remains widespread and causes huge errors.

When U.S. inflation was very high, in the early 1980s, people could hardly afford to buy a home with conventional mortgages, since the inflation-zapped interest rates often approached 20% a year, and the purchase of a house worth just three years' income would entail mortgage payments approaching 60% of one's income. As inflation continued, mortgage payments would eventually come down dramatically in real terms, but that would not happen for years. Few could afford the early payments in those years, and so it became very difficult to buy a home. Home prices dropped, though the price drop was limited because there was an intense supply response to the high interest rates: residential investment as a share of U.S. GDP fell to 3.2%, the lowest point ever recorded in the period since World War II. All this could have been prevented if people had simply adopted inflation-indexed mortgages, but the public seemed unable to grasp the concept. Yet it would have been perfectly natural for them to do so had they already become accustomed to dealing in baskets.

The stock market was low in value in the early 1980s, reflecting the fact that nominal interest rates were very high, even though real (inflation-corrected) interest rates

were not. This outcome is called the Modigliani-Cohn effect after the economists Franco Modigliani and Richard Cohn, who documented it in the late 1970s.

As inflation came down after the early 1980s, the stock market went up. This excessive movement of the stock market might have been prevented if accounting had been performed in terms of baskets, so that the public would have been less confused by so-called money illusion, the tendency to think of prices in nominal, not real, terms.

The housing boom since the 1990s is also due in part to the public's difficulty with understanding inflation. We remember home prices from long ago since they are such important purchases for us, and so the contrast between those prices and the prices today attracts our attention much more than the contrast between the price of a loaf of bread then and now. We get the false impression that homes have been a spectacular investment when in fact their increase in value, measured in baskets, even over many decades, would generally have been—at least until the recent housing boom—nil.

In 2008 the National Association of Realtors (NAR) launched a \$40 million public awareness campaign entitled “Home Values.” The campaign was designed to put thousands of advertising spots on radio and television, as well as ads in the print media, on billboards, and on bus shelters. These repeat the slogan “On average home values nearly double every ten years.” The association claims that this statement is supported by their data for the past thirty years. Indeed

it should be, for in the past thirty years consumer prices have nearly doubled twice, and we are at the end of a home-price bubble that caused real values to double once: that's three decades of doubling in nominal terms. It is deceptive to suggest from these data that homes will be spectacular investments, but the NAR can get away with it because of public confusion about inflation.

Indeed, even the Great Depression of the 1930s was intimately related to confusion about inflation. As Ben Bernanke points out in his 2000 book *Essays on the Great Depression*, it is now well known that, while prices in general were falling in the early 1930s, real wages (wages corrected for inflation) were high, and higher in countries that were harder hit by unemployment.

A simple story of the Great Depression is that employers could not cut the nominal wages of their workers enough to keep real wages constant, because cutting nominal wages would be misperceived by employees and their unions as a terrible insult, as an invitation to a fight. As a result, companies could not remain profitable while keeping their entire labor forces employed: their revenues would have fallen more than their costs did. The effects of the Great Depression would never have been as severe as they were if it weren't for confusion over inflation.

If people had been accustomed to quoting wages in baskets before the Depression, employees would have seen their real wages rising and presumably would not have had the same angry



response to nominal wage cuts. Employers would not have had to shut down operations to remain solvent.

If we had been accustomed to quoting home prices in baskets since 1890, then people would generally have known that home prices haven't basically changed in a hundred years (until the recent bubble), and they would never have gotten the idea—as they did in the early 2000s—that home prices always go up.

Creating a new system of economic measurements would have countless other beneficial effects. In the context of some themes discussed earlier in this book, it is worth noting that we have allowed inflation (and income growth) to erode some of the important financial protections that were the product of enlightenment in years past.

When the Federal Deposit Insurance Corporation was created in 1934, the insured limit was \$5,000—and this was twelve years' average per capita personal income. That limit was last raised in 1980, reflecting inflation and income growth, to \$100,000. But \$100,000 is less than three years' average per capita personal income today.

The insured limits of the Securities Investor Protection Corporation (SIPC), which protects customers when brokerage firms fail, were also last raised in 1980. They remain at \$100,000 in cash accounts and \$500,000 in securities—figures which may still sound large but which are not large enough to prevent panicked withdrawals by substantial numbers of brokerage customers should a major crisis ensue.

The erosion of these important protections has been compromising the resilience of our economic system. Defining the insurance limits of the FDIC and SIPC in nominal currency terms has been a serious design error. Defining the limits in terms of baskets would be better—and it would be even better to use another indexed unit of account tied to nominal personal income rather than inflation.

While the U.S. Congress has shown some inclination to make the appropriate fixes from time to time, as with the Federal Deposit Insurance Reform Act of 2005, the institutions remain seriously compromised by their lack of consistency. It is only through adopting a new system of economic units of measurement—so that correctly defining a quantity becomes as easy as saying a word—that we will avoid such mistakes in the future.

## **Information Infrastructure: A Summary**

These six steps, taken together, would unleash the power of better information and help prevent economic crises like the current one from ever starting. Once we provide the economic and governmental incentives for the development of a better information infrastructure, and once that infrastructure has been in place for several years, then imagination and entrepreneurship will take over, pushing us into uncharted territory in the exploitation of that information. We will witness the creation of entirely new kinds of for-profit information providers, both computer-based and human-services-based, all interacting with each

other to promote improved financial decision making by individuals and businesses.

## **New Markets for Risks That Really Matter**

The history of finance over the centuries has been one of gradual expansion of the scope of markets. Over time, more and more kinds of risks are traded, and there are more and more opportunities for hedging those risks. Now is the time to encourage the further development of markets in a way that truly democratizes them, that is, so that the markets cover the specific risks that ultimately matter to individual people. 注

## **·New Markets for Real Estate**

Most urgently needed is a truly liquid market for real estate, especially the single-family homes that constitute the single largest asset of most households.

I and my colleagues have been campaigning for innovative new markets for real estate for twenty years. Our big breakthrough came when the Chicago Mercantile Exchange (CME, now part of the CME Group, after its 2007 merger with the Chicago Board of Trade) created single-family home-price futures markets using the S&P/Case-Shiller Home Price Indices that Karl Case and I initially developed. These markets—spearheaded by Felix Carabello, John Labuszewski, and Anthony Zaccaria—were launched in May 2006 for ten U.S. cities and for a composite U.S. index. They are the only true home-price futures markets in the world today. Despite efforts of market

makers Jonathan Reiss and Fritz Siebel, liquidity in these markets is low, but we still have high hopes for them.

Such derivative markets have the potential to tame speculative bubbles in real estate. Without such markets, there is no way for investors to sell real estate short. There is no way for skeptical investors, who perceive that a bubble is in progress, to express this opinion in the market, except by actually getting out of the market, that is, selling their homes, which is of course a drastic and very difficult step.

If we *did* have a liquid market in real estate futures by city, then any skeptic anywhere in the world could, through his or her actions in the marketplace, act to reduce a speculative bubble in a city, for such a bubble represents a profit opportunity for short sellers. If the market were widely watched, then home builders would see the projected price declines and scale back their own activities, thus averting huge construction booms such as the one we have recently witnessed in the United States. If home builders adopted the enlightened practice of hedging their homes while they were still in production, then the losses would be felt before they even began building.

Some concerns have been expressed over the years that the creation of derivative markets might possibly *increase*, rather than decrease, the volatility of the underlying prices. However, according to a survey of the scholarly literature by financial economist Stewart Mayhew, “The

empirical evidence suggests that the introduction of derivatives does not destabilize the underlying market—either there is no effect or there is a decline in volatility—and that the introduction of derivatives tends to improve the liquidity and informativeness of markets.” 注

The relevance of these findings to the market for homes is not entirely clear; the residential real estate market is exceptionally illiquid, and its prices are very salient to the broad public. However, in my mind, this is all the more reason to believe that introducing futures and bringing professionals into the market for homes will improve its functioning. Indeed, as economist Milton Friedman pointed out half a century ago, trading professionals ought to help stabilize markets at least to some extent, for if they are *destabilizing* markets (buying high and selling low), they are *losing* money—not a strategy that will keep them in business for long.

The prices in the CME housing futures markets have been predicting large declines in home prices in the United States almost since the markets' inception in May 2006. Had these markets been around and matured even earlier, well before 2006, and had they been widely known and understood, then the boom in construction whose consequences we now see would probably never have happened: builders would have seen the handwriting on the wall in the form of the authoritative price predictions that such markets generate.

Many substantial institutions see great potential in these futures markets. These markets could allow them to launch important retail risk management products, and then hedge the risks they acquire in doing so. But they also say that these markets are not really useful until they are liquid. They will not be liquid until the institutions start to trade. There is a “chicken and egg problem.” To circumvent this, the futures markets need a catalyst to get the chickens together. The catalyst could result from some of the innovations to be described below, or from the exchange or from the government. The markets need an incentive for market makers to provide liquidity that in turn would draw other participants into the market.

Other kinds of markets for macro real estate risks include options, swaps, forwards, and similar derivative instruments. The CME launched an options market for single-family home prices in 2006, based on the S&P/ Case-Shiller Home Price Indices, at the same time that it launched single-family home-price futures.

Pensions, endowments, and other global investors would find these markets, if they are liquid, fundamental to their activities. Real estate is a major asset class, comparable in size to the entire stock market, and should represent an important element of diversification for portfolio managers. An array of derivative markets would enable institutional investors to access this asset class in a more thorough and systematic way than they can today.

Commercial real estate is also starting to see such markets develop. The IPD indexes of commercial real estate in the United Kingdom have already seen the origination of over £15 billion of notional value. That is still quite small compared to the total value of commercial real estate in the United Kingdom, but it is an encouraging beginning.

## **Other New Markets**

I place greatest emphasis on real estate markets in this book because real estate has been so important to business fluctuations, and particularly so in the current crisis. But there are many other kinds of new markets that need to be, and will be, created as we move to a more fully developed financial sector.

Foremost among these will be markets for long-term claims on incomes—individual incomes, incomes by occupation, incomes by region, and national incomes. These markets are important because they represent livelihood risk, the most important risk that each individual faces. Markets for occupational incomes—such as futures, forwards, swaps, and exchange-traded notes—will ultimately make it possible for people to hedge their lifetime income risks. The markets would be of fundamental importance for the issuers of continuous-workout mortgages, discussed below.

National incomes, sometimes measured by gross domestic product or GDP, deserve their own markets as well. These could in fact already exist, since GDP accounting is well

developed, and data are maintained for every country in the world.

Stefano Athanasoulis and I have campaigned for governments to issue debt indexed to their GDPs. Stephany Griffith-Jones and Inge Kaul at the United Nations Development Program, Eduardo Borensztein and Paolo Mauro at the International Monetary Fund, and Kristin Forbes at the Council of Economic Advisors, have also advocated such ideas. This could be perpetual debt that pays a share of GDP as dividend. My colleague Mark Kamstra of York University, who has been working with me to promote the adoption of such government securities in Canada, has suggested calling these trills, since it would be natural to have each share pay a trillionth of a year's GDP. This would mean that one Canadian trill would be currently paying an annual dividend of about CA\$1.50, and one U.S. trill would be paying an annual dividend of about US\$15.00.

These dividends would go up or down through time depending on the level of economic success of the country. The market price of one Canadian trill might today be in the vicinity of CA\$30, and that of one U.S. trill roughly US\$300. The price of a trill would fluctuate with information about the future prospects of the country, just as a company's stock price fluctuates with information about the future prospects of the company. Presumably there would be a lively and interesting market for these securities.



Most importantly, a market for trills would allow countries to hedge their national economic risks. If the U.S. government had issued trills over the years, and if a substantial fraction of the national debt were trills, then the U.S. government would find that it had freed up sufficient resources to allow it to deal promptly with an emergency like the subprime crisis. In an economic slowdown, the government would find that the burden of interest on the national debt would, in effect, fall below expectations. It would thus have more resources available to deal with the crisis. That is fundamental risk management, applied on a national scale.

Of course trills have never yet been issued by any government. There have been some GDP-linked securities, notably Argentina's issue in 2005 of GDP warrants. To establish these better, further work should be done on improving the timelines and replicability of GDP numbers, and reducing the tendency for substantial subsequent revisions.

## **New Retail Risk-Management Institutions**

The new markets described above are intended to create a general infrastructure for risk management. But the general public cannot be expected to use sophisticated risk-management techniques. For example, most people will never trade in futures markets: they are not accustomed to doing so, and such trading poses significant challenges to the uninformed. For them we need to design simple retail products

that will allow them to participate in these new markets, thus truly achieving the democratization of finance.

The analogy is to the kind of risk management that grain elevators provide to individual farmers. Farmers do not generally hedge their risks on futures markets; that is often too difficult a strategy for the individual farmer. But a farmer will sign a contract for delivery of his grain to the local grain elevator, and that contract pushes some of the farmer's market risk to the owner of the elevator—who will in turn hedge the risk in the futures markets.

That simple concept is a model for vastly improved risk management for individuals. Retail organizations can channel the benefits of the risk markets described above to individuals.

### **•Continuous-Workout Mortgages**

A new kind of home mortgage that I call a *continuous workout mortgage* would have terms that are adjusted continuously (in practice probably monthly) in response to evidence about changing ability to pay and changing conditions in the housing market. The mortgage contract would schedule an automatic workout every month—much as is currently done on a one-time-only basis during the mortgage workouts offered to defaulting homeowners. Continuous-workout mortgages would be privately issued, and the government would be involved only in providing appropriate regulation and infrastructure.

One type of continuously adjusted mortgage made its appearance as far back as the high-inflation, high-interest-rate period of the late 1970s to the early 1980s. The price-level-adjusted mortgage (PLAM) advocated by Franco Modigliani allowed payments to respond monthly to changes in a single economic indicator: the inflation rate as measured by the consumer price index. Today we can do much better than the PLAM, for the consumer price index would be only one of many factors to be taken into account in any mortgage workout.

The continuous-workout mortgage would exemplify the democratization of finance since the benefits of such mortgages would naturally accrue to *everyone*. The workouts would be systematized and automated, so that they would land in the laps of all who could appropriately benefit from them—not just those who were savvy about finding a good lawyer, proactive in asserting their rights, or prone to arousing sympathy as conspicuously needy.

I argued in the last chapter that bailouts of some sort are a necessary part of the subprime solution, to avoid an economic crisis that would destroy public confidence and possibly lead to systemic failure. Unfortunately, such bailouts have a side effect: they encourage moral hazard. People may act irresponsibly because they come to *expect* bailouts. But this side effect is a serious problem only when the bailouts are neither arranged in advance nor freely chosen by all parties. If people pay in advance, in a free market, for the right to a bailout, then it is no longer a bailout; it is an insurance policy. If it nevertheless

encourages undesirable behavior, it is at least undesirable behavior whose costs have been covered.

Continuous-workout mortgages are one way of providing for a “responsible” bailout. These financial devices, set up in advance, would do what bankruptcy courts do on an emergency basis after the fact: they would adjust the terms of a loan to the borrower’s ability to pay. But, unlike bankruptcy proceedings, continuous-workout mortgages operate on an ongoing basis, responding to fluctuations in income as they occur and not allowing problems to build up to crisis level. Think of them as regular checkups and preventive care rather than a sudden trip to the emergency room. Nor do they entail the embarrassment and loss of reputation associated with a bankruptcy. Indeed continuous-workout mortgages continue to function under circumstances that otherwise would trigger a bankruptcy claim, allowing the lender to continue collecting a stream of payments that, while perhaps reduced, is at least uninterrupted.

There remains of course a potential moral hazard with continuous-workout mortgages: a borrower might deliberately lose his job in order to trigger reductions in loan payments or, worse yet, work in the shadow economy and not report any income. Moral hazard is inherent in all risk management, including insurance and bankruptcy, and risk-management institutions can, with sufficient diligence, reduce it to manageable levels. Dealing with moral hazard is likely to be much more effective if the responses to income loss are planned in advance, rather than as part of an ad hoc bailout,

by risk-management institutions that have an incentive to contain moral hazard.

One way to structure continuous-workout mortgages to reduce moral hazard is to write into the loan contract a payment formula that relies not only on the borrower's actual income but also on indicators of the earning ability of others in the same geographic area and occupational category. Under such a plan, a borrower could intentionally reduce her own income, but this would not have much effect on the payment schedule, since she could not influence the other indicators. So-called occupational income indices, if designed properly, could achieve the ideal of loan terms truly dependent on ability to pay while minimizing moral hazard.

Continuous-workout mortgages clearly ought to be a central pillar of any plan to deal with the subprime crisis. The fact that mortgage workouts are now being advocated so strongly, and by people of so many political persuasions, implies that the workouts should be institutionalized, regularized, and made permanent. Continuous-workout mortgages do just that.

### **•Home Equity Insurance**

Decreases in home values can reduce or even eliminate a homeowner's equity, making it difficult or impossible for the owner to refinance with a new mortgage. The homeowner may conclude that it is impossible to move to another home, even if such a move would allow her to take advantage of a

lucrative job offer. The mortgage may eventually end in default, especially since the homeowner may decide that it is just not worth struggling to make further payments on a mortgage when she can just walk away from the whole mess.

Home equity insurance contracts can be written on the market values of homes in a metropolitan area, protecting homeowners against declines in the value of their homes within their local markets. Home equity insurance would eliminate the risky, often highly leveraged, position in which so many homeowners find themselves today. Such contracts would go a long way toward preventing many homeowners from ever falling into negative equity positions, thus allowing them to remain in their homes. This in turn would foster the various social and psychological benefits of homeownership, encouraging the maintenance of neighborhoods and promoting civic participation.

With fire insurance, there is always the moral hazard that a homeowner will deliberately burn down the home in order to collect on the insurance. If we wrote home equity insurance policies directly on the selling prices of homes, then we would have an analogous moral hazard: the homeowner would lose any incentive to maintain the home properly or to negotiate the best price on its sale. Any loss would be incurred by the insurance company. But if the insurance is written on the aggregate value of the homes in a city, rather than on the value of an individual home, then there is no moral hazard.

Home equity insurance would also eliminate the panic selling that sometimes devastates housing values, when owners see home prices starting to fall and decide to bail out. Had such insurance contracts been available in the past, we might not have seen the collapse of home values in major cities undergoing racial change, and the transitions could have been smoother and gentler than the “white flight” that actually occurred—a sort of negative speculative bubble built, in that case, around a racial story. The economic destruction of neighborhoods in such cities as Detroit, Philadelphia, and Washington might have been minimized or perhaps avoided altogether. Had city centers remained vital, industry might have been more inclined to remain in place, further supporting the vitality of the cities.

Home equity insurance has been tried before. The first attempt took place in Oak Park, Illinois, in 1977. An important recent experiment, in the city of Syracuse, New York, was carried out by some of my colleagues at Yale, with the help of the Neighborhood Reinvestment Corporation. This pilot program was innovative in that it was based on a home-price index for the city of Syracuse rather than on the selling price of the individual homes, thereby controlling moral hazard.

The concept of home equity insurance can also be implemented, essentially, through options. The options for single-family home prices now traded at the CME offer a clear route that homeowners can use today to protect themselves against the risk of falling home prices tomorrow. Anyone can

buy a put option on home prices at the CME, which acts like an insurance policy that pays off if home prices fall below the strike price of the option.

These put options are available to the general public today, but few avail themselves of them, let alone have any appreciation of the financial theory of risk sharing that lies behind them. Options are widely thought of by the public as financial gimmicks for reckless investors, when in fact they are effective devices for spreading and canceling risks. But skepticism has always greeted the introduction of new investment vehicles in the retail marketplace, and properly conducted programs of education will eventually allow the general public to understand and benefit from the concepts of real estate options.

### **•Livelihood Insurance**

Today, when a middle-aged person loses a steady job, as when an industry shuts down or the demand for that person's services drops, it may lead to a loss of income that becomes a crushing lifetime disaster. Louis Uchitelle, in his 2007 book *The Disposable American: Layoffs and Their Consequences*, discovered that those on whom this misfortune falls are truly suffering—but suffering mostly in silence, out of a sense of shame and of being at fault.

Livelihood insurance would be a significant step toward addressing the consequences of job loss. It would build on another existing risk-management institution: disability insurance. But it would expand its coverage beyond just



*medical* risks to take account of *economic* risks to livelihood as well. ④ When disability insurance was invented, the level of information technology was such that medical risks to ability to earn an income were sufficiently measurable and verifiable to allow insurance policies to be written on those risks. But disability insurers of the time had no reliable way of measuring economic effects on an individual's livelihood. Today we have sophisticated econometric indices of livelihoods based on large databases—and these indices can and no doubt will be improved even further over time.

To avoid moral hazard, livelihood insurance cannot of course simply guarantee a specified level of income to the insured, lest that individual stop working and begin living off the insurance settlement. But—in parallel with continuous-workout mortgages and home equity insurance—it ought to be possible to write livelihood insurance policies whose payouts are connected only partly, if at all, to the insured's own income, while still insuring against specific risks to that income. Occupational income indices appropriate to an individual's line of work could be used to define an insured loss without inducing moral hazard. If there were markets for occupational income risk, then a private insurer could hedge the risk it was incurring by writing such policies.

The existing disability insurance industry provides a natural infrastructure upon which to build livelihood insurance.

Livelihood insurance might be viewed as a more modern and effective embodiment of the concept of unemployment insurance, a century-old concept. When unemployment insurance was invented in the United Kingdom in 1911, and implemented under the leadership of David Lloyd George, *The Times* of London wrote, “But for the unemployment scheme there is no precedent. It is really a ‘leap in the dark,’ and an uncommonly bold one.” 注 The gamble on the new scheme paid off. Over time unemployment insurance has been copied all over the world, and the entities that provide it have largely been able to keep moral hazard under control. Yet unemployment insurance in its present form never really managed to insure long-term livelihoods effectively.

Given our much-improved information technology and more sophisticated financial theories, we should be able to advance the mission first taken up by the framers of unemployment insurance. Because of the complexity of its implementation, livelihood insurance should probably be offered by private insurance companies, facilitated by the government through regulation, infrastructure, and support of associated public goods, such as education.

The subprime crisis coincides with a time of transition for many people into, if not permanent unemployment, then permanent loss of the ability to earn substantial income for the rest of their lives. Livelihood insurance would go a long way toward mitigating the effects of such a trend. This time of crisis—when millions stand to undergo transitions to

significantly reduced circumstances over their lifetimes—is the ideal time to consider it.

## **Risk Management versus Risk Avoidance**

The adoption of risk-management devices like those discussed above would have fundamental effects. When we lack such devices, we tend to avoid risks in less optimal ways. Risk-avoidance behavior can, for example, have undesirable consequences for our decisions about where we work and live. Unable to insure against the risks inherent in our choice of geographic area, we may tend to choose safe jobs that we think we can never lose. We may elect to work in large metropolitan areas, where a wide variety of job opportunities are available, rather than in small rural communities or towns far from city centers, where the job markets are likely to be more specialized. Thus we tend to be more conventional in our choice of occupations and more dependent on big cities and their suburbs than we may want to be.

Risk-avoidance behavior also has an impact on the behavior of city, regional, and even national governments. Fearing the uncertainties associated with new economic development initiatives, these governments typically choose to play it safe and model themselves along conventional lines. They slavishly imitate other successful entities when they ought to be cultivating their locales as vital centers for specific emerging technologies or industries.

The result of all this avoidance behavior is a depressing uniformity and lack of adventure in our society. People

should certainly avoid essential risks—risks to society at large—but not necessarily insurable risks, which can be spread out across large segments of the population and thereby blunted. But people tend to avoid both kinds of risks, draining society of much of its creativity and vitality.

### **What If? The Combined Effect of the Elements of a Long-Term Solution**

Imagine our society equipped with a well-established information infrastructure that reached out to all its members; derivative markets for both owner-occupied and commercial real estate; well-developed retail products, like continuous-workout mortgages, home equity insurance, and livelihood insurance, that facilitate risk management for individuals; and default options that naturally lead people to use risk-management devices intelligently.

The crazily inefficient pricing in the market for owner-occupied homes would come to an end. The exaggerated swings of home prices, reflecting speculative thinking, would be tempered by the market actions of international investors and thus would be far less likely to cause the kind of disruptions we have been seeing in the current subprime crisis. A major source of business instability, fluctuations in real estate investment, would be rationalized.

Our society could look forward to nothing less than more stable markets and, in turn, a more rational economy. We would eventually find ourselves forgetting that the kind of

massive financial instability infecting our everyday lives is even a potential problem. Modern finance, applied democratically, can relegate these problems to history just as modern medicine, applied widely, has left us forgetting that epidemics of yellow fever and diphtheria ever raged among us.

## Epilogue

The key to long-term economic success is rightly placed confidence in markets. In contrast, bubbles are the result of misplaced confidence.

The various components of the subprime solution described in this book are designed to facilitate such rightly placed confidence, by making the markets and their associated risk-management institutions work as they ideally can, for the benefit of all of us.

The short-term component of the solution described here is the most urgent. People are suffering and businesses are collapsing. The memories of these traumas will harm confidence and trust in our markets for years to come, just as they did during the Great Depression. With each passing day more damage is done to our social fabric.

But the long-term component of the subprime solution is also ultimately needed to consolidate our stabilization. We must seize the opportunity today to make changes that will

allow everyone to participate in the construction of a better future. The process of economic development is not over—we are learning from the current crisis, and the changes we make now can lead to a permanently better world.

The long-term solution that I have offered here may strike some as rather unexpected. Suggesting as it does the further development of our financial markets and institutions, freeing them to work better, the solution may seem to be moving us in exactly the wrong direction.

Indeed, there are some who argue that the whole financial sector has been in a bubble, which will eventually burst. According to labor economists Thomas Philippon and Ariell Reshef, the U.S. financial sector has grown from 2.3% of GDP in 1950 to 7.7% of GDP in 2005. Some of this rapid growth is likely due to the booms in stock, housing, oil, and other commodities markets over the last twenty years.

But Philippon and Reshef also show that there has been a marked shift within the financial sector since the late 1970s: In the 1970s, financial workers were only slightly more educated and received only slightly higher wages than other workers. Since then the skill intensity and remuneration of financial workers has grown much faster than in the economy at large. ④ It seems clear that this change reflects the growth of an important emerging technology of finance. Recognizing this, the next logical step is to assure that this technology becomes available for the benefit of everyone.

There are those who imagine that the entire solution to the subprime crisis is in either sidestepping or punishing the financial sector. They think that the solution is to be found in more bailouts, regulations, rules, penalties, and prison sentences.

I too have argued that, in the short term, bailouts should indeed play some role in our response to the crisis. Whenever the economic system is discovered not to have insured people properly, bailouts are a sign of our attentive humanity for each other.

Our sense of trust in each other is itself substantially the legacy of former humane actions that at times took the form of bailouts. Consider the Marshall Plan, which was in a sense a gift from the United States to the damaged nations of Europe after World War II. The payments were not made in fulfillment of any prearranged insurance contract. They were the embodiment of the principles that Keynes had laid out in his *Economic Consequences of the Peace* a generation earlier. They were humane responses to the terrible situation in which Europe found itself after the war. In his 2006 book *How to Cure a Fanatic*, novelist and social critic Amos Oz claimed that “It was the Marshall Plan that won the cold war. Not ray guns and star wars, but the Marshall Plan. I think that communism was defeated through the Marshall Plan, though its overthrow took thirty or forty years more to realize. It was Harry Truman, not Ronald Reagan, who won the cold war through the Marshall Plan.” 注

We can only hope that some of the same generosity toward those who have been ill treated will appear again in the current financial crisis.

But we cannot go forward with an assumption that ad hoc bailouts will be an appropriate mechanism for protecting human economic and social welfare in the future. The same moral premise that underlies bailouts today requires that we get to work to set up systematic procedures to deal *in advance* with comparable future crises.

We must *institutionalize* generosity to the unfortunate. Doing so ultimately means producing risk-management contracts. Doing this is a natural extension of the trend in our society, over the past two hundred years, of replacing many of our charitable institutions with insurance-based institutions.

Are people less grateful when the reimbursement they receive is a payout of an insurance policy rather than an act of charity? Probably. But gratitude is not our objective here. Close on the heels of gratitude may come a sense of shame and personal failure. Social stability, lack of discord, is enhanced most of all by a general sense that we have institutions that treat all of us in a fair and compassionate way, even though the actions of these institutions do not require any spontaneous impulse to generosity.

The aftermath of the subprime crisis has involved considerable finger-pointing. It is natural to want to blame



what has happened on some combination of evildoers. The danger is that the emphasis on placing blame may cause us to lose sight of the real solution.

Of course, there *have* been evildoers. Every financial boom creates opportunities for the unscrupulous among us, and the opportunities demand that they hide behind a veil of corporate correctness, which makes their behavior all the more galling after the truth is known. During the subprime crisis, some of them had been especially insufferable, with their self-interested claims that there was no problem in the housing market, arguing with each successive month that the market would bottom out in the next month or so. It is easy to feel little sympathy with these people after the dénouement.

It is no surprise that the heads of some of the biggest investment banks and broker-dealers have now been fired; the person at the helm is frequently let go, if only to symbolize hopes for a new beginning. But we do not want to let our desire for retribution go beyond this, to the punishment of the institutions themselves and their principles.

The reaction to the stock market crash of 1929 and the resulting Depression led to considerable anger in parts of Europe, and intense nationalism and racism. That led to a further weakening of the continent's financial system. In contrast, in the United States in the 1930s, the reaction to the 1929 financial crisis was to try to strengthen our financial sector. The mistaken venting of European hostility

on smoothly functioning financial markets was fully appreciated only half a century later. We need to maintain this financial enlightenment.

A related, parallel development complicates the issue: for several decades there has been a steady rise in economic inequality in the United States, as well as in most of the developed nations of the world. With each passing year, the continued worsening of that inequality further strains our tolerance of those who make large amounts of money in the financial markets.

But this should not be an occasion for punishing the *technology* that has created the riches—for finance is indeed a powerful technology, and it can be a powerful means for making everyone better off. It can even be used to *reduce* economic inequality. A good deal of the economic inequality in the modern world is due to the persistence of unmanaged risks, and financial technology is ideally suited to deal with these risks.

It is true that the rise in inequality has in part been due to cronyism on corporate boards, whose members have increasingly felt that top managers are entitled to exorbitant levels of compensation. But we should not assume that this is the main cause of the rise in inequality, and it certainly does not suggest that waging war on the financial elite is the best way to deal with the problem.

I believe that in many cases it is true that top executives in the world of finance are not the most caring

people—or at least that they are in less caring stages of their lives, caught up as they are in the game of finance, too filled with the competitive spirit and too busy to think about the needy. Clearly they are not nurses or kindergarten teachers. But public policy directed against their activities is not the solution to our problems.

It may be difficult, in the present climate of public anger directed at our financial markets, for political candidates to win support on the promise of expanding and developing our financial markets. But that is exactly what is needed now to solve the subprime crisis and prevent a recurrence of similar economic crises in the future.

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  3. <http://www.loansafe.org/fontana-council-to-consider-joint-powers-agreement-to-help-underwater-mortgage-holders>
  4. G-20 Finance Ministers and Central Bankers Statement (Text), Washington, April 20, 2012, paragraph 9. <http://mobile.bloomberg.com/news/2012-04-20/g-20-finance-ministers-and-central-bankers-statement-text-?category=>
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